THE BUILDER

A RECORD OF ARCHITECTURE AND CONSTRUCTION.

VOL. CVIII.—No. 3763. MARCH 19, 1915.

THE FUTURE TREND OF BUILDING.

WHAT is likely to be the direction of future building developments in this country, and what are the main factors which will be likely to affect and give direction to those developments? We think they may be summarised as being the general habits and tastes of the population, their means of locomotion, their incomes, and the manner in which real and personal estate are affected by taxation.

Within the last thirty or forty years enormous changes have taken place which have largely done away with the insularity of all but the working-classes, while the latter are changed too, because they have become fully alive to the power which they can exercise in politics and the fact that this country is, in reality, the most absolute democracy in the world. Taking the working-classes first, there is a disposition to appeal to the Legislature to make good any hardships incidental to their lot, and it is now recognised to be the first duty of the State to see that the housing conditions affecting them are brought into line with modern conditions of hygiene and comfort. If private enterprise will not suffice to provide the necessary dwellings the work will be carried out by the State through local representative bodies, and necessarily the whole community will bear the cost, either directly in the shape of increased taxation or indirectly in the shape of increased cost of all commodities met by an increase of wages.

The worker also needs more amusement and recreation than used to suffice, and this calls for more places of amusement in all industrial centres. The cost of education is a rapidly increasing factor, and will probably result in the future in the use of State schools by classes of the population who have hitherto provided for their own wants.

The middle-classes, who bear the brunt of any hardships incidental to a great readjustment of the conditions of life, are finding the problem of service more and more crucial, as other occupations are proving more attractive to the class on whom they depended. To a certain extent this may be met by the adoption of labour-saving expedients, but the tendency will very likely lead to many seeking greater freedom by living in flats and hotels, where the necessary catering is done for them, or in communities having the use of private restaurants on reasonable terms. This, coupled with the greater demand on the part of women for freedom from the monotony of domestic duties, is bound to affect the general development of building, if it has not already done so, and the direction will be likely to be in the greater return to town life.

We doubt if the garden city movement will grow to the proportions which its devotees expect. Where, as in the case of the Hampstead Garden Suburb, it results in the development of land which must be built on in the near future, and saving it from the speculative builder, it will succeed; but where, as in the case of Ruislip, the endeavour is made to form a huge residential neighbourhood many miles from a town, it will probably fail. People are not likely to want to go a dozen miles out of London to be in a huge built-over space some three and a half miles long, the greater part of which is on clay soil. Garden settlements to succeed should be of moderate size, unless they are in the immediate vicinity of towns. The back-to-the-land movement is, clearly unlikely to prove attractive to a large number of people who enjoy the pleasures and amenities of a town, and it is impossible to do more than play at the revival of Old English village life. We may deplore the depopulation of the country in the interests of the State, but it is difficult to convince the individual that he should sacrifice his personal tastes for national purposes, except in such an emergency as is caused by the present war.

Increased means of rapid locomotion are bound to have an enormous influence on the development of building. The tube railways have brought the outer districts of London in convenient touch with Charing Cross and the City, and London, for the first time since its population could be numbered by millions, has become a convenient unit. The advent of the motor and motor-cycle is having an effect on building, since it is no longer necessary for those who can afford to use them to be dependent on trams and slower means of locomotion. They can live in towns in the week and get the recreation and pleasure of the country at week-ends and whenever they have spare time; it may, in fact, be said that the motor is the great enemy of the country house, which will be in many cases replaced by the week-end cottage. The growth of population and wealth renders necessary increasingly large and costly buildings in towns both for purposes of business and pleasure, and it is obviously in our towns that the greatest future building developments are likely to take place.

Many will, no doubt, argue that the freedom as to locality of residence which is undoubtedly given by the use of the motor will lead people to live in the country and not in towns; but we are inclined to think that the attractions of a great town are so numerous that they will counterbalance the claims of the country with those who will feel that the requirements of health can be amply met by the proper utilisation of week-ends and occasional days. It must also be remembered that the smoke nuisance, thought it is with us still, will be a diminishing factor with the progress of time, and that towns tend, in spite of the growth of population, to become quieter than they were in the days of bad roads and horse traffic.

The increased cost of building is most unlikely to affect development to any considerable extent, since most building is only undertaken when it is absolutely necessary, though it may tend in the direction of inducing the individual to rent rather than to build himself; but this, again, will not be likely to affect architects or builders, because the supply must equal the demand, and the successful speculator has to gauge the tastes of the public for whom he caters—a fact evidenced by the class of buildings erected on many of the great London estates.

What is, however, more serious is the general sense of insecurity which has been caused by recent land legislation. The land tax and increment duty were obviously intended to prevent holders of land from placing obstacles in the way of its development, and to secure for the State a share of the wealth accruing from handling a monopoly. In effect, as recent years have proved, it has acted as an enormous bar to private enterprise in housing both for the working and middle classes, and the cost of the collection of the new taxes has largely exceeded what has been obtained from them. Also, they are felt to be a direct incursion into the field of Socialism, as, assuming the increment duty is justified, there is no reason why it should not be increased in the future. Probably this will right itself, since even a theorist is bound to learn in time from hard facts, and, though we cannot hope for the repeal of the measures, we may see their operation mitigated by future legislation, or, at the worst, the road to change may be held to be closed for a long time to come; but for the present both the large and small investor in land and building have shown an inclination to turn their energies in other directions.

It is predicted, and we hope with truth, that this condition of things will be changed after the war. Summing up, it may be considered that the greatest developments of the future will be in our towns, and that the tide of building in the country has almost reached its maximum; that for domestic buildings there will be a greater demand for the use of labour-saving devices.

NOTES.

Architects and the War.

THE architectural profession has set a good example of patriotism in the present war crisis, and we have received from the Institute a list containing over 1,200 names (additions to which are being made every day) of those who are at present serving in His Majesty's forces. We should like to publish the list, but unfortunately space does not admit of our doing so, though we shall from time to time give notes of any honours received by architects on active service, and we hope to have to devote considerable space to such items. Obviously, architects from the nature of their training are likely to be of special value in the war, since their occupation necessitates some acquaintance with both engineering and surveying matters, and modern warfare is nothing if not scientific. We are sure that those who have put duty before profit and sacrificed tastes and inclinations to undergo hardships and danger will find that they have not lost clients thereby, but only made friends and increased the esteem in which they are held.

The late Mr. Walter Crane.

WE greatly regret to have to record the death of Mr. Walter Crane, to whom modern decorative art and design owes much. Crane may be described as having been a decorative artist in the fullest and broadest sense of the word. In the field of illustration of children's books his talent and skill found successful expression, and as the child is father to the man his influence on art in this capacity has probably been of more value than we can judge of. When we look at the children's book of fifty years ago and contrast it with that of to-day, we can measure the great advance which was due to Crane's untiring efforts. As a painter Crane produced work of much merit, though his colour sense was deficient and his painting more remarkable for its skill, delicacy, and fancy than for its colour and force. The quaint and beautiful representation of "The Lady of Shalott," exhibited in 1862, shows the direction of his talents and individuality. The well-known badge of the Architectural Association is a pleasing example of his minor work in design. He also worked in plaster with considerable success, and wrote poetry as well as devoting much energy to political matters in the character of a Socialist reformer. Like other many-sided men he perhaps accomplished less than he might have done were his activities less dissipated, but none the less his death is a great loss to contemporary art.

Brick Buildings.

MR. H. M. FLETCHER, M.A., read a most interesting and instructive paper on "Brick Buildings" at Carpenters' Hall on the 10th inst., in the course of which he called attention to the effects of colour and texture which had characterised brick buildings in the past. He said: "I do not mean that richness of effect is unattainable in brickwork—the use of one's eyes would soon disprove that—but it must be sought carefully within the natural limits of the material, with no attempted rivalry of the different richness of stone building. The first and most important—all important perhaps—of these limits is that bricks are made in moulds." The essence of moulded work is repetition, as the essence of hand-work is variation, as can be well illustrated by the different treatment of cast and wrought iron. He laid stress on the effect to be obtained by the use of diaper, the "system of drawing which is almost that of an Oriental carpet," and the change of colour which may be logically used, as Wren used it at Hampton Court, to mark off the different stories of a building. We agree with him in the strong case he made out for the London stock, which has been too much neglected of late; he said that, although in narrow streets it held the soot too easily and goes black where wind and rain cannot get at it to keep it clean, there are few better bricks to live with. It forms an excellent background for red roses, which produce an excruciating discord with red brickwork. Mr. Fletcher dealt with the way to produce texture in brickwork, to the enormous variety obtainable through the different kinds of joint employed, and the variation of colour which, carefully used, will give much of the charm of old work to a new wall. The subject is a fascinating and useful one to the student and architect, and was ably handled by Mr. Fletcher, whose paper proved that the builder of a simple brick wall has the opportunity of producing a "thing of beauty."

Brussels.

THE second of the series of Carpenters' Company lectures at University College took place on March 11, the lecturer being M. C. F. Caluwaers, a member of the Royal Commission on Belgian Monuments and Sites. The title chosen was "A General Review of Belgian Towns—Brussels, Malines, and Louvain," but M. Caluwaers confined himself mainly to an historical survey of the growth of the capital town. In the seventh century St. Gerald built the chapel known in modern times as the Church of St. Géry, around which, situated on an island in the river Senne, a settlement was founded. The earliest mention of this as the town of Brussels was in the latter part of the eighth century, after which the settlement grew by leaps and bounds. Exposed to many vicissitudes, the town always showed great recuperative power, and, in fact, appeared to grow in size and beauty after every set-back. It was on one of the main thoroughfares from France to Germany, as a natural result of which it became an important trading centre, absorbing wealth and also many outside artistic influences. Brussels owed much to the Dukes of Brabant, who made it their capital town, and who laid out many of the principal streets and parks, besides doing much for the general artistic welfare of the city. But it was not until after 1831, when it became the capital of the kingdom of Belgium, that it assumed the importance it has at the present, largely owing to the efforts of Leopold II., often surnamed "Le Batteur." M. Caluwaers showed some slides of both the old and new parts of the town. He expressed himself as an admirer of the architecture of the Palais de Justice, but he does not consider it suitable for the position it occupies, its scale being too large for the rest of the town and overshadowing all else. An illustration of one of the modern suburban town halls demonstrated once more how much better these problems are handled abroad than with us. We do not admire the architecture of this particular example, but the whole lay-out is admirable and on a scale worthy of the central building of a community. By far the most interesting of the slides, however, were those of outdoor monuments, another feature concerning which this country has so much to learn from its present Allies.

House Building.

MR. M. H. BAILLIE SCOTT delivered the first of a series of Cantor Lectures at the Royal Society of Arts on Monday, March 15, on "House Building: Past and Present." It is seldom that an architect gets the opportunity of giving the public his special views on building and illustrating them with instances from his own work. Mr. Baillie Scott's well-known dislike of anything but simple forms unadorned by any applied features makes him very exclusive, and he complains that plain building is not understood as an art, and that architecture is generally thought dull unless it is elaborate. We think there is much greater appreciation of proportion and the relation of masses to-day than there was twenty years ago, and there is no doubt that the change of taste is very largely due to the efforts of Mr. Baillie Scott, Mr. Lethaby, Mr. Lutyens, and others. Possibly the strongest and earliest exponent of these principles was Mr. Phillip Webb, who retired some few years ago. His work was stamped with the same downright honesty and abhorrence of sham which actuates these men to-day, but he was not so enamoured of the cottage treatment being applied to all descriptions of work. In defence of his attitude the lecturer took literature as an example, and asked whether it was not generally accepted that the best was not the most elaborate and that which lasted had no superfluities. It was small wonder, he said, that there were no critics to-day who could understand the motives of modern designers. He did not condemn all elaborate building; he considered that elaboration was only justifiable when the designer was exuberant and joyful. The application of this principle would make the appearance of our streets very largely dependent upon the state of the weather at the time when the designs were prepared, and the "petrified joy" which Mr. Scott would only permit as a result of a natural ebullition of enthusiasm would with some temperaments never appear at all and with others would always be in evidence. The root of his objection is against ornament for its own sake and without relation to the general scheme, and we scarcely think that this indictment of the best English architecture of to-day is a fair one. Mr. Scott also strongly objects to the practice of erecting public buildings with steel skeletons concealed by stonework cut into shapes reminiscent of Classic architecture of the Greeks and Romans. He says that is called the "grand manner," but that it is very gloomy and bombastic and that it is much to the public credit that no one takes the slightest interest in it. Criticism of this kind cannot be taken seriously, as it is no more a sham to face the enclosing walls of a steel-frame building with stonework than it is to face the walls of a building of the Building Act thicknesses with similar stonework, and the general condemnation of Classics would exclude all our finest examples of English Renaissance.

The Manitoba Parliament Buildings.

A CANADIAN paper calls attention to the trouble which has arisen over the carrying out of the Parliament House scheme which Mr. Stokes assessed at Winnipeg, and which, it will be remembered, ended in the selection of Mr. Simon's design and his appointment as architect. According to our contemporary the original estimates accepted amounted to a total just short of £600,000. The public is now told that the cost will reach £900,000, the expenditure of £300,000 having been embarked on without consulting the Legislature. Dr. Montague, who appears to be a financial expert, proceeded to say, "This was done before my connection with the department, and the cost surprised me." He went on to blame the architect, but for the choice of the architect he held the Government not responsible. "We also found that the architect who drew the plans was a better drawer of artistic pictures than a calculator of bearing power and strains. This is not meant offensively. He has given valuable service in the artistic way. You will remember that a Committee of the House selected the plans from a number submitted; so the Government is not responsbile for having employed him." The architect is thus to be made the scapegoat, and is apparently put in the wrong by the fact that he is said to have agreed to charge no commission on the extra cost; but we are not willing to accept such evidence, knowing what architects have frequently done in order to adjust matters with difficult clients. It appears that the site of the building has been changed and that foundations which were put in had to be abandoned. Our contemporary expresses a wish to hear what the architect has to say, and we share that wish. Mention is also made of the meagre details supplied to competitors by the promoters of the competition We expect Mr. Simon can, if he chooses, make out a very good case for what has been done.

THE ordinary general meeting of the Royal Institute of British Architects was held on Monday at No. 9, Conduit-street, W., Mr. J. A. Gotch presiding in the absence of the President through ill-health.

Mr. Guy Dawber (Hon. Secretary) announced the death of Mr. Harry Wilkinson Moore, elected Associate in 1881, Fellow in 1888, and placed on the list of retired Fellows in 1912.

ENGLISH CHURCH MONUMENTS.

Mr. James Williams then read a paper on "English Church Monuments," in the course of which he said :—

"One of the chief objects in the study of mediæval art is the lesson it conveys in the rise and fall of the great governing principles which influenced its development, to unparalleled excellence on the one hand, and to the neglect of the essential ideals which slowly led to degeneration on the other. The history and progress is seen best in the works themselves, better than in any descriptions that can be given. The wide range of monumental art illustrates this in a way that other branches of work fail to present with such convincing sequence. To-day, with the natural evolution of thought, the religious outlook has entirely changed from that of the mediæval position ; but the more the subject of monumental art is considered the more one is impressed with the deep religious feeling that pervades the work of the best periods, and this was evidently the basis of inspiration for the consummate beauty and the infinite resources for which the work is justly noted. Another important lesson, amongst many others, which the study of this subject teaches, is the immense value and possibilities of honest craftsmanship, which alone has produced all the various objects that we as a nation most prize ; but now with the general use of machinery hand labour has largely died out, the workman has been robbed of his greatest heritage, and the creative powers of a whole nation of workers are asleep.

The northern invaders of Europe from about the end of the fifth to the eighth century are represented in some parts of our country by monuments and crosses showing rude interlacing patterns of Scandinavian character. The advent of Christianity made an entirely new outlook, and the cross provided a great and permanent motive for the carver's art, though it was not generally adopted until Saxon times. From the eighth to the twelfth century there are many monuments in the three kingdoms decorated with frets, lozenges, and runic work. The precise origin of some crosses put up in these early times is a matter of debate ; some belonging to the seventh and eighth centuries in the north and west of England are supposed to be of Coptic origin. Many were destroyed by the Normans, or were used as building material in the new churches which they erected.

Of the various things influencing the character of the monument the materials of which they were made and the quarries and workshops that produced them are interesting points. The country abounds in good stone and marble. From the earliest times the quarries, their nearest towns, and the great churches have been centres of monumental masons and their works. Throughout the Middle Ages flat tombs, marble and stone effigies, stately monuments, reredoses, saints, and angels were made and kept in stock and distributed throughout the country. In these times, when everything was made by hand, the number of skilled workmen was much larger in proportion than it is to-day. London was perhaps the chief city for all the arts, although every large town was a self-contained centre."

After referring to the materials used in monuments Mr. Williams went on to say :—

"The various crafts employed in building and embellishing the church were amongst the chief trades in the Middle Ages. Though marble is used in most of the great monuments, the constructional work and the leading features are chiefly in stone. The Eleanor crosses, chiefly of stone, which were put up wherever the coffin of the Queen rested, between Headingley and Westminster, are said to be from the designs of the Westminster masons, who carved the figures and decoration. When such refinement of masonry as is seen in Edward II.'s tomb at Gloucester was undertaken stone was naturally chosen. Wherever there was a large supply of good stone a school of masons and carvers generally sprang up, although the trade was not confined to the quarries, blocks of stone being sent by road and water to all parts.

Oak, in the Early and Middle Ages, was extensively used for constructional and decorative works, particularly in districts remote from stone quarries, and altar tombs with their effigies and canopies were often made in oak, painted in colours, gilded, or enamelled. Wood effigies, chiefly in oak, have been used, together with freestone, marble, and metal. In some places wood came more readily into use where good timber was obtained in abundance and skilled workmen were available. Although there are about ninety effigies existing, twenty-four of these being of women and the rest nearly all in military attire, numbers have been destroyed. It is said that the Black Death killed off most of the carvers of effigies, and certainly not many in wood were made after 1350 until the sixteenth century, when the use of wood was for a time revived. Many of them were painted or cased in metal.

An interesting feature in connection with the table tomb is the metal hearse, which served the double purpose of protecting the effigy and providing standards for the numerous candles which were lighted on the occasion of various festivals. Instances are the one in iron round the tomb of Lord Marmion in Tanfield Church, Yorkshire, and the brass hearse over the effigy of the Earl of Warwick at Warwick. A fine iron screen surrounds the tomb of the Earl of Arundel in Arundel Church, with embattled rails and ten buttressed standards with moulded bases and caps with prickets for candles. There is the matchless and well-known iron grille over the tomb of Queen Eleanor at Westminster.

Cast-iron slabs were used for memorials as early as 1500, both in the church and churchyard, near the old ironwork centres. At Burwash, in Sussex, is a long cast-iron slab said to be of the latter part of the fourteenth century, with a small cross on the upper part, and at its base "Orate pro anima."

Arms and heraldry formed a conspicuous feature on the monument, and came into use here about the middle of the twelfth century. It had its origin in the necessity for identifying the various combatants in times of war and tournaments, especially when men were covered with armour. Crests and devices were shown on coins from an early period, and on seals from the twelfth century onwards, for individuals and for both religious and civil corporations.

Small tombs are an interesting section of monumental art. Some instances are those of three children of Henry III. and four children of Edward I., and those of William of Windsor and Blanche de la Tour, in Westminster Abbey, and William of Hatfield in York Minster. In such cases the figures, although of children, are generally shown in the armour or costume of men or women of the time. In Elizabeth's reign rows of kneeling children often appear on the tomb of their parents. The small effigy of a boy bishop at Salisbury of the thirteenth century illustrates a well-known custom in mediæval times.

Semi-effigal monuments, of which there are a considerable number all over the country—chiefly of the thirteenth and fourteenth centuries—should be noticed. The figure of the semi-effigy on slabs and brasses is generally associated with a cross. The idea of representing only a portion of the figure may have been a passing phase in monumental art, or may have been due to a desire to provide a constant remembrance of the deceased on the tomb in which the body lay. Some carry a double semi-effigy. Many are placed within mural arches ; they are also shown on numerous brasses. Many were done about the period of the Black Death—some of a rude character.

Perhaps the greatest difference between mediæval and modern life may be seen in the almost entire absence in the present day of colour in our buildings, accessories, and costume—unless you call black a colour ; one would have thought that if the Academy were too shy to give a lead in the matter of evening-dress the Institute might in mercy take pity on mankind. Throughout the Middle Ages and until the Reformation the colour scheme pervaded everything ; a legacy coming down from very early days, it had its origin in the gorgeous East. Our churches were resplendent with all the incidents of sacred subjects, painted on walls and vaulted ceiling, together with a fine scheme of harmonious decoration. The whole life and surroundings of the people were steeped in rich colour, and the monuments in the churches shared this to the full.

Twelfth-Century Monuments.

Although before the Norman Conquest many monuments existed, and some remain, comparatively little is known of them. Where ornament appears it is mostly of Scandinavian origin. In Bakewell Church is a small Anglo-Saxon coped tomb decorated with rude carving and edged with a ropelike moulding ; others of a different kind, but about the same age, exist at Kirby, Ingleby, and Arncliffe, Yorkshire, and at Wirksworth, Derbyshire. It may be noted that the motive of decorative art in carving and painting is often to be found in the old illuminated manuscripts which exhibit a profusion of ornament of Norse character.

The Christian monument begins with the stone coffin which was hewn out of a solid block and was buried underground ; later, the stone-coffin was interred, with the lid showing on the floor of the church ; then the whole appears with the lid and sides, sometimes decorated with ornament and forming a "raised tomb." Some of the eleventh century have a rude arcading around the sides. Monumental slabs of the same period were discovered at Cambridge Castle ornamented with circular crosses and interlacing work. Some are coped longitudinally and others transversely as well as longitudinally, forming a cross, and are generally shown tapering in width to the feet. At first furnished with a simple cross, they afterwards appear with floriated crosses and borders of enrichment ; some are covered with carved foliage, having birds and animals interwoven. Then the crude effigy appears on the slab. The raised tomb sometimes takes the form of a sarcophagus, similar to that attributed to Archbishop Theobald (*c.* 1160) at Canterbury ; afterwards the raised or table tomb has its sides divided into arcades, niches, or panels, often containing statuettes, and its slab generally having an effigy or a brass.

At the end of the twelfth century a marked feature is seen in the figures of some knights, who are shown drawing or sheathing the sword.

Thirteenth-Century Monuments.

The monuments of this as of the previous century are chiefly those of royal personages, great ecclesiastics, the nobility, and men in armour ; effigies of ladies, of which there are comparatively few, appear in the simple and beautiful costumes of the time.

In the early part of the century the effigies of ecclesiastics retain the stiff and formal character of former years. Slowly they developed to that of bolder relief and greater refinement ; the effigies of bishops are shown with the head surrounded with a simple pediment-shaped canopy with a trefoil arch ; this head canopy grew into an elaborate feature, supported by delicate shafts on each side, carried down to the foot of the slab, giving the appearance of a figure enshrined in a canopied niche. Some are enriched with foliage overlapping the shafts at intervals ; others have a series of small niches at the sides, each containing a figure. Another form of monument is seen in the tomb of Bishop Gilbert de Glanville in Rochester Cathedral, of the sarcophagus type, and that of Archbishop Seval de Bovill in York Minster, which has a low opened trefoiled arcading, roofed with a coffin-shaped slab. The effigies of ladies in long flowing robes are generally shown with the hands in prayer, the head on a cushion with an angel at each side, and the feet on dogs.

Fourteenth-Century Monuments.

As a whole, monuments in this century show great variety of design and freedom in treatment with an ever-increasing richness and profusion of carved ornament and foliage, evidently based

upon a close study of nature. That beautiful feature, the arched canopy over the tomb, in its early stages had the equilateral arch, with circular cuspings, plain spandrels, and broadly-spaced crockets, like that over Archbishop Greenfeld's tomb in York Minster; this grew into the ogee arch with double cuspings, carved spandrels, close-set crockets, rich heraldic display, and profuse decoration, as seen on the monument of Lady Percy in Beverley Minster. The sides of the table tomb developed an increased number of niches with elaborate tracery heads or richly carved and crocketed canopies. The tomb of the Earl of Warwick, in St Mary's, Warwick, has an arcade of thirty-six moulded arches with cusped heads, containing as many statuettes in bronze. The great canopy may cover either a slab or a table tomb, and the monument often rests beneath the pier arches of the chancel or is recessed in the wall; some with moulded arch, crocketed label, and flanking buttresses, others with a triple-arched and groined canopy resting on piers.

A great feature of this century is the table tomb with a lofty spiral canopy, like those of Edward II. at Gloucester and Sir Hugh Despencer at Tewkesbury. Coped and flat tombs as well as incised slabs showing many forms of ornamental crosses continued in use, and various devices were employed showing the rank or calling of the deceased.

With reference to the fourteenth-century monuments it has been truly said, "One is struck with the fine sense they show of the right decorative use of all sorts of constructional features, such as bases, shafts, arches, buttresses, pinnacles, vaults, etc.; the men who made the monuments knew all about stonework from the building standpoint, but they were essentially artists in carving and sculpture, and they handled the accepted forms of stonework with wonderful felicity in adapting them to decorative uses.

Fifteenth-Century and Late Gothic Work.

The fifteenth century is notable for the number, richness, and great variety of its monuments, table tombs, canopied recesses, engraved brasses, marble slabs, and chantry chapels. The table tomb generally had its painted stone or alabaster effigy; the sides of the tomb are decorated with cusped and crocketed arches, or with small canopied niches with and without statuettes or heraldic shields, or are filled with cusped quatrefoils. Sometimes the head of the effigy is surrounded with a rich canopy connected with a series of niches, one above the other, on each side of the figure, as on the magnificent tomb of Henry IV. in Canterbury Cathedral. Judges are shown in their robes and merchants in their long coats, the effigy of the wife is shown by the side of the husband, the sculptured figure of a skeleton in a recess is often placed under the real effigy. Inscriptions, formerly in either French or Latin, were often done in English black-letter. The triple-arch canopied recessed tomb, with a bold cornice, is a common form of monument in this century. The development of the rich tabernacle work in the canopy over the table tomb may be seen in the monument of Archbishop Bowet in York Minster and in Cardinal Beaufort's chantry chapel in Winchester Cathedral. The single-arched canopy of ogee form, with crockets and finial, and flanked by buttresses, continued in use until about the middle of this century, as well as that surmounted by a bold cornice with panels of tracery underneath it. The flat-painted canopy in wood, with decorated cornice, suspended arches, and ceiling furnished with a sacred subject, is not uncommon during this period. The alabaster effigy much in evidence throughout this time shows with minute care all the details of dress and armour. Some of the great monuments towards the end of the century have over the canopy arches a screen-work of open lights with cusped heads, or rich, open tracery crowned with a decorated cornice. A special feature in the development is the chantry chapels which were built in such large numbers during this century. It may be noted that they are unknown outside of England.

The Renaissance.

By the middle of the sixteenth century Gothic art in England had reached its final development, when there gradually arose an entirely new outlook in architecture and the other arts. The movement known as the Renaissance began in Italy at the beginning of the fifteenth century with the revival of Classic art and literature, and it spread to other European countries. The great architectural works of the Roman period were numerous, and had to a certain extent been preserved under the encouragement of the Popes. Italy awoke to the appreciation of these magnificent works, and the writings of Roman architects were studied. The first buildings of importance were carried out in Florence and Rome, chiefly by Brunelleschi, Bramante, Raphael, Michel-angelo, and Palladio, but it was not until the early part of the sixteenth century that the influence was felt in England. In 1512 Torregiano, the famous Italian artist, was commissioned by Henry VIII. to design a monument for the Countess of Richmond, the mother of Henry VII. Before this Torregiano was engaged upon a monument of Dr. Young (now in the museum of the Record Office), with the object of satisfying Henry VIII. before being entrusted with the more important tomb of the Countess and that of his father and mother. The terra-cotta tomb of Dr. Young, with its fine effigy, is entirely after the Italian manner. In that of the Countess of Richmond, though the sides of the tomb are Italian in their treatment, the canopy surrounding the head and its supports on each side of the figure are of Gothic design. Then followed the great monument of Henry VII. and his Queen by Torregiano, more strictly in the Italian style, but here the great bronze screen which protects the tomb is purely Gothic in character. Numbers of workmen were attracted to this country through the encouragement given them by Henry VIII. and his Court. Lord Marney, of Layer Marney, Essex, and Sir Thomas Weston, of Sutton Place, Surrey, both employed Italians on decorative works in terra-cotta in connection with their mansions; but the use of this material did not last long. About 1525 a terra-cotta monument completely in the Italian style was erected to Lord Marney in Layer Marney Church. Various works, but to no great extent, were done chiefly in the south of England, showing Italian influence, and amongst them several monuments. After the death of Henry VIII. most of the Italian workmen left the country, and their special art soon died out.

An enormous number of Classic monuments, of widely different merit, have been put up, all more or less interesting from the human as well as the architectural point of view.

Monumental sculpture, however, became strangely altered from its original purpose and fell from its high estate. In the best periods of Gothic art the carved effigy was treated conventionally, as an important accessory to the design of the monument. To attempt an actual copy in sculpture of a deceased person was never intended, the limitations in the use of all materials were freely acknowledged, and the desire was to give an ideal representation of the figure, in an architectural setting, and as part of a monumental scheme.

With reference to the monuments which are being put up in our churches, more especially in Westminster Abbey and in the cathedrals, it is high time some strong protest were made. If a memorial must be erected "inside" the church a small tablet should, in most cases, answer the purpose. The churchyard, however, offers the least objectionable alternative; but here the monotonous display of hundreds of white crosses and tombstones all of the same type shows to what depths the public taste has sunk. In the case of Westminster Abbey, crowded as it is with tombs, it is a disgrace that more are being allowed to put be up. Various reasonable suggestions have been made to meet the requirements for monuments, when of a national character, and these ought to receive the immediate attention of the responsible authorities. The old cathedrals and churches are too precious to be further invaded and disturbed by any modern productions. An exception, perhaps, may be claimed, with reluctance, for such a masterly work as the beautiful monument by Alfred Stevens, one of the greatest sculptors and painters of modern times, put up to the Duke of Wellington in St. Paul's Cathedal. It worthily illustrates the best traditions of both Classic architecture and sculpture, and may be compared with the works of the most noted Italian artists."

Mr. Arthur Keen,
in moving a vote of thanks to the author, said that, speaking in a general way about the subject, what had struck him in the series of beautiful monuments of mediæval times which had been shown was that they served very admirably to illustrate the almost infinite possibilities of design in Gothic detail. In the illustrations they had seen there was no feeling of conscious effort or striving after originality, but everything seemed to proceed from what had gone before, with such improvements as the particular workman was capable of. He was not going to prophesy that their next architectural revival would be a Gothic revival, but he thought it was within the bounds of possibility. The illustrations also seemed to refute what used to be almost the constant criticism of Gothic decorative detail, viz., that it used the features of constructional work falsely in decoration. That criticism was justified to a certain extent in the matter of woodwork, and particularly in the earlier centuries of Gothic work. In the monuments they had seen constructional features were used freely in almost every case in a perfectly decorative sense; but it appeared to him that in all cases they had been used with such wonderful judgment and sense of right handling that the criticism failed. In all cases there was a difference made in the use of these features—a difference in proportion, in relative size, in the ornamental treatment, and the grouping of them; just sufficient difference to express most adequately the fact that they were used in a decorative sense purely. Many of the fine qualities of these monuments were due particularly to the fact that the men who were making them were also the men who were designing them. The monuments possessed qualities which were quite inseparable from the fact that the artist was the man handling the monument and working the stone in which he was expressing his sense of design. This was a faculty which unfortunately was almost lost in the present day, although it still existed in the case of coachmakers and the makers of farm waggons, and particularly in the trade of the ship's carpenter. Although he was not an advocate of trying to make students architects by teaching them crafts-manship, yet he thought a great deal might be done by teaching craftsmen architectural details, and in that case they might be left a freer hand in works of monuments than at present they were accustomed to have. Apart from the intrinsic beauty which these old monuments had they also possessed the distinct characteristic of great truthfulness. They represented exactly what was current at the time. He could not help feeling that they had lost this truth in sculpture entirely at the present day. In a modern building, if they wanted to represent the idea of commerce, instead of illustrating it by means of a dock labourer, for instance, carrying a box of oranges on his back, they showed a female figure draped, with an antique ship projecting from the side of her robe; which was altogether inadequate to give an impression of modern commerce. If they could get back to the mediæval custom of representing what was current at the day their work would be of greater value in the future.

Mr. L Weaver,
in seconding the motion, said he was particularly pleased that an illustration had been given of the wall tablet in Bakewell Church. He supposed many thousands of monuments would be put up in our churches after the war, and it was desirable that people should get some light and leading as to what should be put up. It was not, probably, that there would be many tombs, because they would be somewhat unfitting, seeing that so many of those to be commemorated would be lying in a foreign land, and, further, there was not room in the churches. Probably, therefore, most of the memorials would be wall tablets. The Bakewell tablet was one of the earliest he knew of, and it was about 1381 or 1382. He would like to know if there were any earlier. He was inclined to think the wall tablet was derived from the semi-effigal tomb-slab. The slab was on the floor and was inconvenient, and was taken up and placed against the wall. He also would like to know when the first kneeling figure was employed in English memorials, and he rather fancied that came from the region of Tournai. Another interesting question was why bronze tablets were not put up in this country until the nineteenth century, seeing that they were very much used in Germany. It would be further interesting to know how far the Baroque movement influenced English monuments, for it was curious how late it was in taking root in this country. He somewhat protested against the author's disapproval of standing figures, because some of the earliest

monuments were the Greek steles in the very best period of Greek art, and they showed figures standing. Provided it was not done with undue vigour he saw no reason why it should not obtain still.

Mr. A. T. Bolton
quoted the impressions of Edward Burke after visiting Westminster Abbey in 1751, and the awe with which it inspired him, and the extraordinary interest of the epitaphs and inscriptions on the monuments. Of course the first impression when one came to study architecture was that the monuments were a great nuisance, but if an interior was worth anything it rose far above the monuments. There was also the historical point of view to consider, and it was not too much to say that the narrow ideas of the last half of the nineteenth century had done irreparable mischief and their churches had lost enormously by the pulling down of valuable monuments. As architects they must take things more seriously, and they had not the slightest right to interfere with history by the abolition of monuments in this way, for the facts contained on them were of vital importance to their cousins in America, Australia, and elsewhere.

Mr. J. Wrightson Beteson
thought, as architects, they ought to study the old monuments in view of the design of monuments in new churches. Often in a Gothic church they found a monument of Classic design put in, which was incongruous. He considered that the time had gone past of the workmen having much to do with the design. They had not time to do the work as they did years ago. If they could sit down for a time and consider their designs and get paid in an adequate way they could turn out designs as good as those in the past.

The motion was carried.

Mr. Jas. Williams,
in reply, said the Bakewell tablet was one of the earliest he knew of. He did not know when the kneeling figure came into English monumental art. He agreed it was a pity that bronze tablets were not used earlier, but they had been more used of late. He did not object to standing figures, but to the gorgeous display so evidently intended in many of the later monuments. Where they were shown with the sweetness of the earlier work it was allowable.

The Chairman announced that the next meeting would be held on March 29, when Mr. W. A. Pite would read a paper on "King's College Hospital."

THE COURTYARD, SOMERSET HOUSE.

WHEN Sir John Soane was Professor of Architecture at the Royal Academy he delivered a series of lectures which were very popular, although his denunciation of the shortcomings of other architects led to his being suspended for two years. Soane's lectures are recorded in neat copper-plate handwriting, together with some beautiful miniature drawings, in one of the bookcases at the Soane Museum. The actual illustrations to a large size were specially made by the leading draughtsmen of the time. These drawings are also preserved in the architect's office. Lantern slides in those days were unknown, and even Donaldson and Cockerell had recourse to the time-honoured method of coloured perspective and elevational diagrams. It is our intention to publish several of the best diagrams from time to time to enable those of our readers who seldom get an opportunity to visit the Soane Museum to obtain an idea of the valuable and instructive drawings contained therein. This week we publish a reproduction from a view of the courtyard at Somerset House which Soane used to demonstrate the value of texture in masonry, and to show how effectively square masses can be grouped in perspective, and how horizontal and vertical features were arranged to obtain the best contrasts. Soane was very broad-minded in his view of English classic architecture and insisted on the value of studying insular examples. But he did not carry this ideal far enough in his own work. We doubt very much if a more comprehensive collection of original drawings by English architects and artists of the eighteenth century can be found than the collection which the famous architect laboriously made.

The Courtyard, Somerset House.

ARCHITECTURAL SOCIETIES.

Sheffield Society of Architects and Surveyors.

An interesting comparison of the cathedrals of Amiens and Salisbury was given to the members of the Sheffield Society of Architects and Surveyors recently by Mr. J. R. Wigfull. Mr. A. F. Watson presided. The lecturer said it was often claimed that Gothic architecture originated in France, and that England borrowed it, but later investigation seemed to show that there was a separate development in each country. The English might have borrowed from the French to a slight extent, but not in the wholesale manner that had been suggested. With the assistance of a series of slides from his own photographs, Mr. Wigfull took his hearers in detail through the two cathedrals, comparing the buildings externally and internally. They were both commenced in the year 1220, and they are practically the same length, but the width and height of Amiens are very much the greater of the two.

Mr. Wigfull was heartily thanked, on the motion of Mr. J. B. Mitchell-Withers, seconded by Mr. W. J. Hale, supported by Councillor Fenton and Mr. H. L. Paterson.

Glasgow Technical College Architectural Craftsmen's Society.

A meeting of the Glasgow Royal Technical College Architectural Craftsmen's Society was held on the 12th inst., when Mr. J. A. T. Houston gave a lecture on "English and French Wrought-Iron Work." Starting with a short history of architecture, the speaker traced the evolution of the art of wrought-iron, showing how the several architectural periods had each a well-defined effect on artistic iron-working. The lecture was illustrated by slides showing many fine examples of the art in Italy and France, notably at the Louvre and Versailles. Types of English work were also shown, and the importance of the influence exercised on iron-working by Inigo Jones, Wren, and Adam was emphasised.

THE SOCIETY OF ARCHITECTS:

THE LAW AS TO THE REMUNERATION OF THE ARCHITECT.

A MEETING of the Society of Architects was held on Thursday, March 11, when Mr. A. Montefiore Brice, Barrister-at-Law, read a paper on "The Law as to the Remuneration of the Architect." He said:—

"Just as the profession, as opposed to the practice of the architect, is not regularised by law, and its pursuit is open to any person who may choose to take upon himself the risk of holding out that he possesses the knowledge and skill required for the work he undertakes to do, so there is no legal or statutory code of charges for such work as he has undertaken and done.

The profession and the remuneration of the architect do not depend on statute as, *e.g.*, do those of the solicitor, but any person may hold himself out as able and willing to undertake the work of an architect, and any such person may sue for and recover some, but not necessarily a definite, remuneration for having done that work. Should the contract between the employer and the architect, or some subsequent contract, whether written or verbal, specify in exact terms or by reference, the charges which the employer shall pay and the architect accept, then there is an express contract as to the amount the architect may properly charge; but if there be no express contract, whether verbal or written, as to such charges, then it will be held, as no professional man can intend or can be required to give his skill and care for nothing, that there was an implied contract between the employer and the architect that the one should give and the other receive a reasonable remuneration for services rendered.

This is the legal doctrine affecting the remuneration of the architect, unless a specific contract has been entered into between the parties as to what that remuneration shall be be. In the absence of such a contract, then the remuneration of the architect must be such

an amount as in all the circumstances seems fair and reasonable.

Architects have endeavoured on many occasions to show that the scale of charges recognised by the profession has in course of time and experience amounted to a "custom," but no scale of charges, however widely known within and however generally adopted by the profession, can, if unreasonable, govern a case in which the other contracting party did not know of such custom, or, if knowing of it, did not expressly or impliedly consent to it. Formerly the practice of the profession in this respect received perhaps greater attention than it has obtained in more recent years, and in 1869 Lord Romilly, in Attorney General *v.* Drapers' Company (L. R., 9 Eq. 69), said that:—"The charges of brokers on the transfer of stocks and shares are paid by a commission, and if a similar practice prevails with respect to surveyors' charges I shall not disturb it. It prevents disputes as to amount, and the charges fixed by the scale do not seem too high."

The modern and still prevailing view was put clearly enough by Lord Coleridge, L.C.J., in Burr *v.* Ridout (1893, *Times*, February 22; *Builder*, February 25, 1893, p. 157), and followed by the same judge in Farthing *v.* Tomkins (1893) 9 T. L. R. 566), and in Gwyther *v.* Gaze (*Times*, February 8, 1875), by Quain, J., who held that an alleged customary charge of 2½ per cent. on the lowest tender, when no tender had been accepted, was unreasonable, and left it to the jury to say what sum would be reasonable. While it is within the province of the jury to assess the amount which would be reasonable, it is the function of the judge to decide as to whether an alleged custom is reasonable. The Courts have always taken upon themselves to consider whether a custom is or is not within the bounds of reason, and if the custom is unreasonable the Courts have said that they will not recognise it as binding on people who do not know it and have not consented to act upon it. Perry *v.* Barnett (1885) 15 Q. B. D. 388, per Brett, M.R., at p. 393, and in Debenham *v.* King's College, Cambridge (1884) 1 T. L. R. 170), it was held by Willis, J., that there is no custom between surveyors and their clients by which the former can base their account on Ryde's Scale of Fees for Surveyors' Charges; and a surveyor, in the absence of a special agreement, is only entitled to charge a fair and reasonable sum for his services.

If, however, there is contained in the contract (as there should always be) a clause dealing expressly with the remuneration of the architect, no difficulty need arise; neither should there be any difficulty when the amount and scale of the charges is agreed by reference to be in conformity with the scale of the Royal Institute of British Architects or with Ryde's Scale or some other method of computation known to or accepted by the parties to the contract.

Where such a scale is known by the employer to exist and to be used, there will be a presumption (which may, of course, be rebutted) that the employment is upon the terms of such scale or custom, and in Buckland *v.* Pawson (1890) 6 T. L. R. 421), Day, J., said the question was whether the plaintiffs were or were not employed upon what was known as Ryde's Scale. He did not think the evidence in the case was sufficient to establish a custom, but there was abundant evidence that Ryde's Scale was generally known and was the ordinary mode of remuneration of surveyors. The plaintiff was employed by defendant, who, it was sworn, had employed others and had himself been employed on Ryde's Scale. There was overwhelming evidence that the persons whom the defendants entrusted with the duty of employing a surveyor were well acquainted with the custom, and it must be assumed that the plaintiff was employed on Ryde's Scale.

Similarly a custom, however unreasonable, is binding on the parties if the contract is entered into by them upon the terms of such custom. Thus in Blackburn *v.* Mason (1893) 9 T. L. R., 286 C. A.) it was held by the Court, per Lord Esher, M.R., that a party could only be bound by an unreasonable custom when at the time of dealing on the market the custom was made known to him and he had agreed to be bound by it, and see Cooke *v.* Eshelby (12 App. Cas. 271).

There should be no difficulty as to the scale of remuneration if the architect agrees with his employer that his payment shall be made upon the basis of the schedule of charges as drawn up by the Royal Institute of British Architects, supplemented, where necessary, by Ryde's Scale.

The charges which an architect in the course of and arising out of his profession may be called upon to make are many and various, and may now be considered under two heads, namely, charges arising out of the building contract and charges outside the building contract.

Charges Arising Out of the Building Contract.

According to the schedule of the Royal Institute of British Architects and the practice of the profession, the usual remuneration of the architect is a 5 per cent. commission upon the total cost of the works executed under his directions, and this commission is payment for the necessary preliminary conferences and sketches, approximate estimate when required, the necessary general and detailed drawings and specifications, one set of tracings, duplicate specification, general superintendence of works, and examining and passing the accounts, exclusive of measuring and making out extras and omissions.

The commission does not include payment for services rendered in connection with negotiations relating to the site or premises, or in supplying drawings to ground or other landlords, or in surveying the site or premises and taking levels, making surveys and plans of buildings to be altered, making arrangements in respect of party walls and rights of light, or for drawings for and correspondence with local and other authorities, or for services consequent on the failure of builders to carry out the works, or for services in connection with litigation or arbitration, or in the measurement and valuation of extras and omissions.

But the practice of the profession shows that such commission of 5 per cent. is inadequate in the case of works of less cost than £1,000, or of highly-decorated buildings or of alterations and additions, and in such cases the architect's fee is one which is reasonable in the special circumstances of each case.

If the architect sends in an estimate or submits drawings for approval, and they are not accepted or approved or used, no claim for remuneration in respect of the estimate or drawings, in the absence of an agreement to the contrary, will arise. Thus in Moffat *v.* Laurie (1855) 15 C. B. 583) the architect made surveys and plans for the employer without charge upon the understanding that he should be appointed the architect upon the land being sold for building purposes, but the employer died and his executors put it out of their power to sell the land for building purposes, and it was held that he could recover nothing inasmuch as the event on the happening of which alone the plaintiff was to be entitled to remuneration for his services, namely, the disposal of the land for building purposes, had not happened.

In Moffat *v.* Dickson (1853) 13 C. B. 543) the architect agreed to examine the site proposed for a lunatic asylum, and to prepare preliminary probationary drawings for the approval of the visitors' committee, and subsequently to prepare the whole of the working drawings, estimates and specifications for the asylum, and to accept £437 10s. for those services. The probationary drawings were not approved, and upon that ground it was held that the architect could not recover.

With regard to competition drawings everything turns on the precise terms of the invitation to compete, and in the absence of any undertaking to pay, the drawings must be regarded in the light of estimates for which no charge can be made. Thus in Ward *v.* Lowndes (1859) 28 L. J., Q. B. 265) the architect sent in drawings for a covered market house upon the invitation of the advertisement of the Commissioners, who also offered a premium of £20 for the best design in the event of the maker of such design not being selected as the architect. The plaintiff sued on the ground that his was the best design, but he failed in his action.

But if the plans or estimates or preliminary work is used at all, even if the architect is not engaged to superintend the work, he can recover on a *quantum meruit*. Thus in Lindley *v.* Wilson (1880) 8 Ct. of Sess. Cas. 4th Ser. (Rettie) 289) an architect prepared detailed plans, and though the buildings were not proceeded with, the employer used the plans to his advantage in dealing with a purchaser of the ground. The employer denied liability on the ground that the plans had been furnished upon the footing of there being a competition; but it was held that, assuming the fact to be as stated by the defence, it still lay in the employer to prove that the employment was gratuitous, and this he had failed to do. The Court held that the architect was entitled to reasonable remuneration, and Lord Shand added (p. 293):—"If I had been of opinion that the case was one of a competition of plans between the two architects, and the defendant had afterwards thought fit not to build at all, I should have had great difficulty in holding that he would have been entitled to say to the competitors:—'You shall be paid nothing for the plans and labour you have bestowed on me.' My impression is that each of them would have been entitled to receive a *quantum meruit*." But the defence of competition was negatived by the Court.

Charges Outside the Building Contract.

The architect may be properly called upon to render a variety of services in no way necessarily connected with the usual building contract under which he plans, designs and supervises the erection or alteration of a building. He may, for instance, be called upon to survey ground suitable for building, or survey buildings, or measure up completed work, or value houses, lands or work, or draft bills of quantities, and act as an arbitrator or as a witness in Court or at an arbitration.

In exercising any of the foregoing functions he is, in the absence of an express or implied agreement for a fixed or ascertainable sum, only entitled to charge what is reasonable. He may, if he chose, charge upon a scale known to and approved by his profession; but if it be unreasonable he cannot impose it upon a client who is ignorant of it, or who, upon the making of the contract, could not rightly be supposed to contemplate such a method of computing payment.

See Debenham *v.* King's College, Cambridge (*supra*); Brocklebank *v.* L. and Y. Ry. (1887) 3 T. L. R.); Burr *v.* Ridout (*supra*); Gwyther *v.* Gaze (*supra*); Perry *v.* Barnett (*supra*).

But if the employer could reasonably be supposed to know of the scale and of the custom of charging in accordance with it, so that an implied agreement might be inferred, then the architect could sustain an action for payment based upon such a scale (see Buckland *v.* Pawson (1890), 6 T. L. R. 421).

In examining and settling accounts between a builder and a building owner, the architect can recover a reasonable fee for his time and trouble, but the Court will not (except perhaps when the amount of the account is small) permit a charge based upon a percentage of the total amount of the account (Upsdell *v.* Stewart (1794), 2 Peake, N. P. 255).

Nor in qualifying for giving evidence or for actually giving evidence, can an architect base his fees upon the value of the subject matter in dispute. Coleridge, L.C.J., in Drew *v.* Josolyne (1888) 4 T. L. R. 717), declared that he had never sanctioned and never would sanction the supposed rule that surveyors should be paid for their evidence by a percentage on the sum in dispute rather than by a computation of the work they had done. In that case the surveyor employed as an expert witness had charged £136 for qualifying, and this amount had been reached by calculating a percentage on the work measured. The master had struck out £106 and allowed the witness £30 for qualifying himself, and £3 3s. a day for attendance during the arbitration, and, on appeal, the master's decision was upheld.

In measuring up deviations, etc., and in the absence of an agreement to the contrary, the architect is entitled by the custom of his profession to charge a sum over and above his commission of 5 per cent. (if such payment by commission is agreed) for doing such work.

In practice the amount is added to the builder's account or rather to the certificate given by the architect to the builder, and this has the effect of putting the architect in the unsatisfactory position of inspecting his own work and certifying for it. But, though the charge is added to the builder's account and presented by him to the employer for payment, yet this practice does not entitle the architect to sue the builder for the amount in the event of the employer refusing or neglecting to pay the sum in question, for although as a method of practice the payment has been included in the builder's demand, yet in essence the charge is one for which the employer is responsible, for the work of measuring up deviations and extras

by the architect or the suveyor is a work which is obviously for the protection and benefit of the employer and serves as a check upon the builder. It is therefore useless for the architect to sue the builder, except for money had and received for the use of the architect. Beattie *v.* Gilroy (1882) 10 Ct. of Sess. Cas. 4th Ser. 226).

The charges of the architect are paid variously, but generally according to agreement and by periodical instalments.

It is a legal principle that if a contract is entered into to carry out an entire work for a complete sum, then the right to that payment does not arise until the whole work is itself completed. If an architect enters into such a contract as this he runs a serious risk of getting nothing at all, for if he is unable by illness or other cause to finish the work he has undertaken to do, he is by that contract entitled to nothing.

If there is no such contract, then the architect may recover payment as the work progresses, for, unless a contrary agreement can be shown, a man is entitled to be paid as soon as he has done any work agreed to be paid for, just as, in the absence of an agreement to the contrary, a vendor is in law entitled to receive the cash of his purchaser in simultaneous exchange for his goods.

Loose language in agreements has on many occasions deprived the servant of his hire. Thus, where a person working for a Committee agreed to be paid by the Committee on the terms of its resolution that "any service to be rendered by W. shall be taken into consideration, and such remuneration be made as shall be deemed right," it was held, when he brought an action for reasonable remuneration that the Committee was the sole judge as to whether any and, if so, what remuneration should be payable, and that the plaintiff, in consequence, should be nonsuited (Taylor *v.* Brewer (1813) M. & S. 290). But if the employer has agreed to pay some remuneration, then the architect is entitled to be paid one that is reasonable (Bryant *v.* Flight (1839), 5 M. &. W. 114).

The intervention of a condition will determine the time of or the right to payment; as in Moffat *v.* Dickson (*supra*), where payment depended on approval which was not given or as in Moffat *v.* Laurie (*supra*), where payment depended on the land being sold by the employer for building purposes, and the land was not so sold.

Should the employer who has entered into a contract with the architect for certain work refuse or neglect to proceed with such contract, the architect will then be able to sue for damages for the employer's breach of his contract, and the measure of his damages will be all the sums earned but not paid before the breach and all the future profits which it is reasonable to suppose he has lost because of the breach. In Farthing *v.* Tomkins (1893) 9 T. L. R. 566) an architect prepared plans for a hotel, but owing to the financial incapacity of the employer the proposed building was abandoned, and the architect, failing to obtain his fees, brought an action for them, and it was held that he was entitled to recover fair charges for the work which had been done.

In Prickett *v.* Badger (1856) 1 C. B. N. S. 296, and see Spratt *v.* Dornford (*Times*, December 1, 1862) it was held that when an agent has done that for which he was employed, but the principal refuses or neglects to avail himself of the agent's work, the agent is entitled to sue for a reasonable remuneration for his work and labour, and in such a case a contract to pay what is reasonable is implied by the law; it is not a question for the jury.

The architect is not entitled to payment when his services have been unskilfully performed, or though skilfully performed have proved to be of no use for the purpose for which he has been employed. Lord Ellenborough, C.J., laid down the legal principle in Farnsworth *v.* Garrard (1807) 1 Camp., N. P. 37), where he said that:—"The plaintiff is to receive what he deserves. If there has been no beneficial service there shall be no pay; but if some benefit has been derived, though not to the extent expected, this shall go to the amount of the plaintiff's demand, leaving the defendant to his action for negligence. The claim shall be co-extensive with the benefit." And Bayley, J., in Duncan *v.* Blundell (3 Stark 6), said:—"When a person is employed in a work of skill the employer buys both his labour and his judgment; he ought not to undertake the work if it cannot succeed, and he should know whether it will or not; of course it is otherwise if the party employing him choose to supersede the workman's judgment by using his own." See also Hill *v.* Fetherstonehaugh (1831) 7 Bing 569, per Tindal, C.J., at p. 571, and Alderson B., at p. 573), Bracey *v.* Carter (1840) 12, A. and E. 373), and Hunt *v.* Wimbledon Local Board (1878) 4 C. P. D. 48, Bramwell B., at pp. 53 and 54).

Where a professional man makes an estimate, which turns out to be incorrect to a considerable amount through his omitting to examine the ground for the foundations of the work, he is not entitled to recover anything for his plans, specifications or estimates made for that work, for he is negligent either in not himself making the examination or in trusting to the inaccurate information of others. Whether he has used due diligence or not is a question for the jury, and if he went on the statements of others that is no excuse, as it is his duty to ascertain what are the facts or to report to his employer that he only goes on the information of others, or that the facts have not been ascertained (Moneypenny *v.* Hartland (1824), 1 C. & P. 352; and see Whitty *v.* Lord Dillon, 2 F. & F. 67; and Nelson *v.* Spooner, 2 F. & F. 613).

On the other hand, where the question of what is a reasonable sum to pay an architect on work done, *i.e.*, in a case where there is no express contract or the contract has been abandoned and he is suing on a *quantum meruit*, is under consideration, evidence may be given that an architect is a man of exceptional professional skill, qualification or experience, and if this is proved the reasonable fees should be higher than in the case of a person with less or inferior qualification, for it follows that if the employer has chosen a man known for his special degree of skill it is a fair presumption that he chose him for that reason, and that there was an implied undertaking to pay fees in some true proportion to the services expected. Moule, J., in Bird *v.* M'Gaheg (1849) 2 C. & K. (N. P.) 707), held that in an action for payment on a *quantum meruit*, where the plaintiff sued for a larger fee than had been tendered to him, evidence of skill, in order to show the reasonableness of the larger claim, was admissible.

The fact that an architect exercises his lien over his plans and detains them does not disentitle him to sue for the payment for the same, provided that he has given his employer reasonable facilities for inspecting and approving them. Nor is he unable to sue for and recover a proper price, even though he detained the plans when asking for a larger price. He is always entitled to recover for work, labour and materials, on proof of the performance of the work and of the employer's having had a reasonable opportunity of inspection, for his contract is to perform the work satisfactorily and to give the employer a reasonable opportunity of inspecting and ascertaining its correctness. As soon as he has fulfilled this contract and can prove it he may maintain successfully an action for the debt without foregoing his lien (Hughes *v.* Lenny (1839), 5 M. & W. 183, 192, 193)."

STUDENTS' DRAWINGS AT THE R.I.B.A.

THE subject recently set for the Final Testimonies of Study—"A Monument to Lord Roberts Overlooking a Garrison Training Centre"—has led to some excellent solutions of the problem. The leading schools are well represented in this competition, and the designs of those students who have not availed themselves of academic study are rendered even more curious by the contrast. We were particularly impressed with the brilliant series of designs presented by the students of the Architectural Association, whose studies, under the direction of Mr. Robert Atkinson, have made such progress as to bring this school into the first rank. The Liverpool School of Architecture sends a quota of designs; the Atelier, University College, Gower-street, and the Manchester School are in evidence. The main walls of the Institute gallery are practically covered with imaginative schemes; while the interspaces are occupied by sheets which are the efforts of students seeking the light unaided. In this short appreciation of the sound policy set in motion by the Board of Architectural Education some years ago it is not possible, neither is it desirable, to give the names of the competing students; the works will shortly be on exhibition and the designs explain themselves. We have given our attention to the various ideas set forth on the students' sheets, and we state here that our opinion concerning the subject is that all attempts to portray the gallant Field-Marshal, either on horseback or as a standing figure, are to be deprecated. Such a problem as the one under discussion needs to be considered in full relation to the man's character and career, and effigies in parade dress convey but little to the thinker. The students of the Architectural Association, however, evidently worked to a definite programme, which enabled them to extend their range. Hence we find some of the designs appropriately inspired by Hindoo models, and the result is completely justified by the means to the end. Mr. Atkinson evidently believes in imaginative reasoning, and, while limiting his students to the acceptance of a given central basis to emphasise the oneness of the idea—and referring them to historical examples for sculptural detail—he also demands that the men under his charge shall thoroughly appreciate the conditions of the problem and endeavour to impart the true character to their solution. We cannot reiterate too strongly the importance of "oneness" in architectural design. A structure, such as a monument, can have many parts, but unless the central grouping conveys to the mind of the spectator at one blow the whole theory and purpose of the monument or structure it cannot be considered ideal. The fact that nearly every design prepared under the controlling agency of the leading schools is similar in principle is a sign auguring well for the future. Teachers of architecture now recognise what an infinitude of variations can be worked on one sound theme; therefore the family likeness of many of the monuments designed is explained. The fact that the students of to-day reverently study, and do not hesitate to copy, the masterpieces which have preceded their own age is a step in the right direction; it is quite distinct from plagiarism, and will lead to an extension of tradition.

CORRESPONDENCE.

The Classic Ideal in Architecture.

SIR,—Believing that your very thoughtful and illuminating leaders on modern architecture are partly addressed to students, I take the liberty, as one of that category of readers, of mentioning some difficulties raised in my mind by the concluding sentence of your article, "The Classic Ideal in Architecture," in your issue of the 5th inst.

That sentence, in conjunction with what precedes, seems to me to discourage any efforts towards unifying architectural thought. No one would deny that "if the architect is a man of enthusiasm, of character, and of genius, he will produce architecture which is striking and interesting, whatever style or ideal it is based upon," and that "if he is a dull man . . . he will produce dull and uninteresting architecture." But would not the work of both classes serve the community infinitely better if it tended in one general direction? And are not many of the "dull men" made dull by the conflict of methods and ideals which confronts them?

I cannot think that your leader intends to imply that individual ability is the only thing that matters; but, if you agree that a wrong impression may have been produced, I should like, both for myself and others, to see the point made clear at an early date.

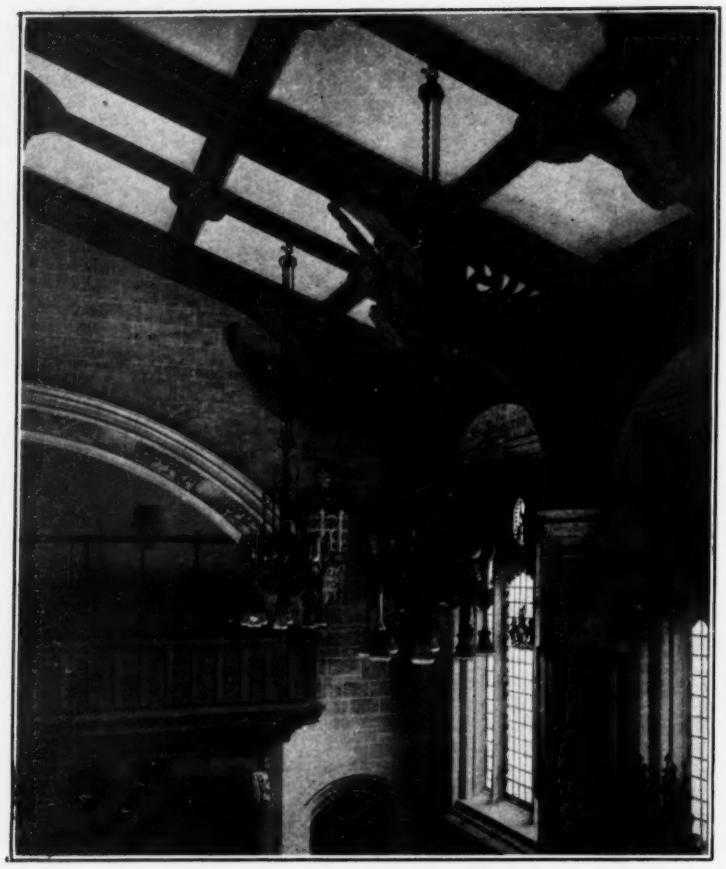
LINDLEY LATHAM.

Building Costs After the War.

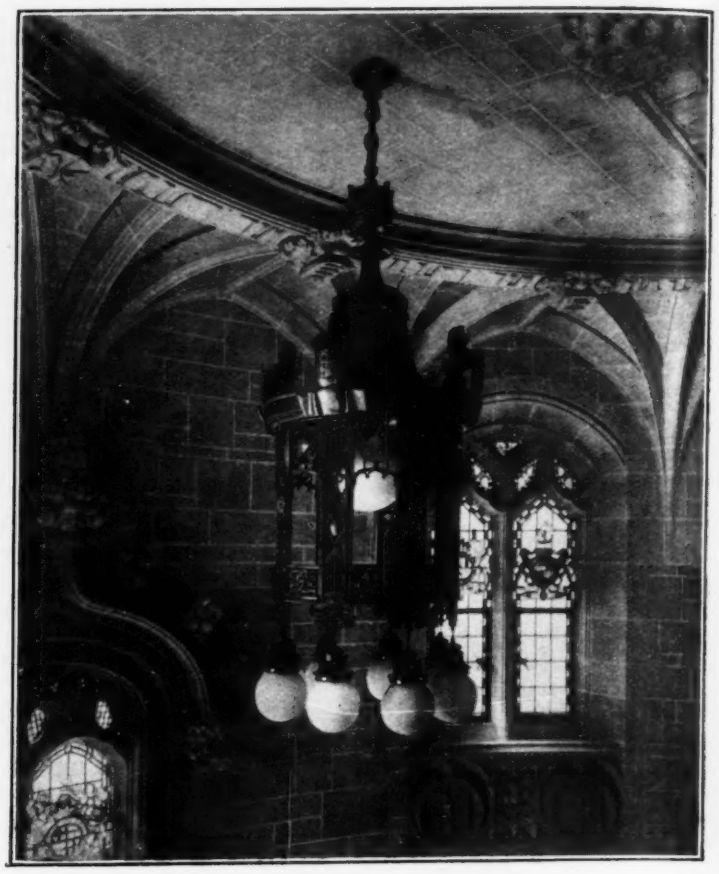
SIR,—The thanks of all interested in the allied professions of engineers, architects, and surveyors are due to Mr. E. L. Chappell, the Secretary of the South Wales Garden and City Planning Association, for drawing attention, in your issue for February 26, p. 198, to the extremely important question as to whether there is likely to be a reduction in the cost of building after the close of the war, and the subject wants a prompt and thorough discussion by a Committee of representative members of these professions, as many works would not be "hung up" if a satisfactory pronouncement could be made.

May I venture, therefore, to suggest that one of the Societies or Institutes should receive the names of those willing to join such Committee, which, of course, should be in London?

A. B. C.



Corner of Ceiling, showing Supporting Figures.



Leaded Light and Heraldic Window.

Middlesex Guildhall, Westminster.

Mr. J. G. S. Gibson, F.R.I.B.A., Architect.

ILLUSTRATIONS.

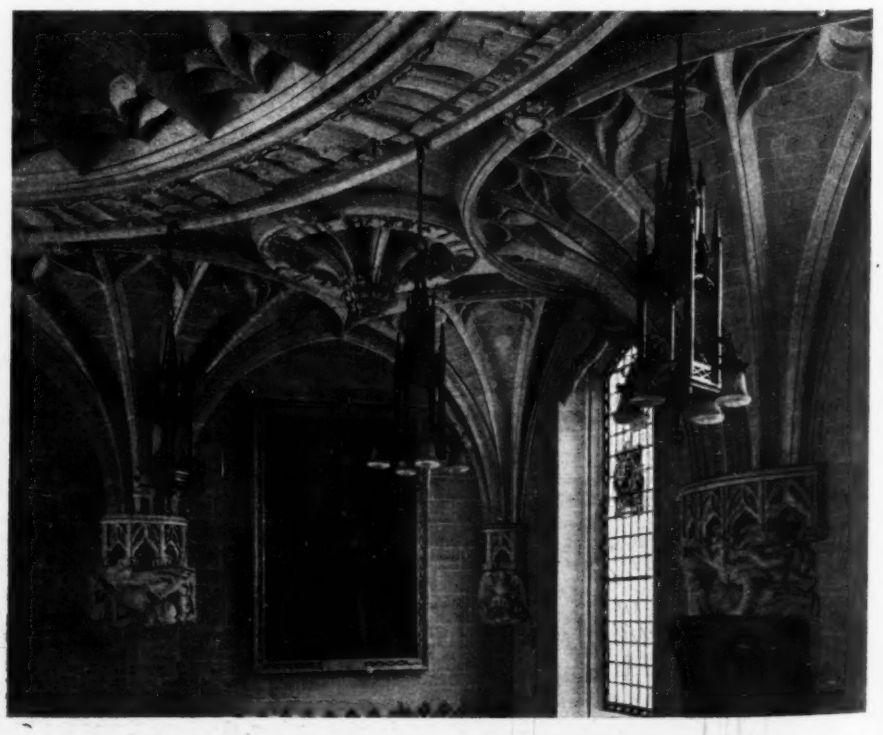
Middlesex Guildhall, Westminster.

THE lament of those publicists that to-day the artist-craftsman is dead, although possessing a substratum of truth, reveals a class of mind that is buried deep in the glorious past and is unable to see the wonderful panorama of the present.

Middlesex Guildhall, the stately edifice which has recently been erected within a stone's throw of Westminster Abbey, possesses some fine examples of the modern craftsman's skill. The façade of the building, which is of late Gothic design, is embellished with a great deal of stone carving. Over the doorway is the Middlesex coat of arms. The frieze on the left of the main front depicts the granting of Magna Charta; in the centre Henry IV. is represented in the act of granting a charter to the Abbey; whilst that on the right shows Lady Jane Grey accepting the Crown. In the fine moulding under the frieze are the coats of arms of the important persons represented therein. The well-proportioned figures in the lower niches symbolise Law, Justice, and Purity; those above representing the Arts, the Army and Navy, and Industry. All the small figures over the first-floor windows on the front typify the special industries connected with the sea and land; those at the sides portray the industries associated with the arts and sciences. The balcony figures supporting are Law and Government. For the ornamentation of the whole building typical English heraldic animals, coats of arms, and foliage have been employed. In the tower band it takes the form of a unicorn and lion rampant.

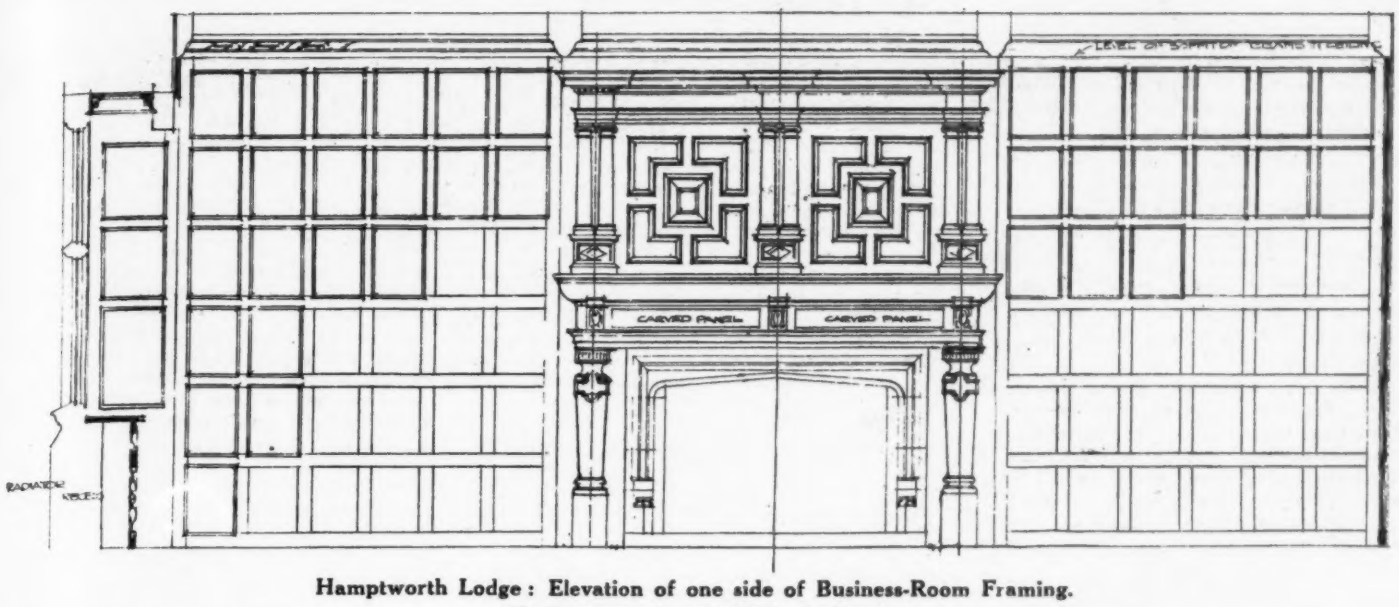
Particularly noticeable in the interior are the beautiful leaded lights and stained-glass work, which are in absolute harmony with the design of the building. The major portion of the painted figure work is to be found in the Council chamber, where are to be seen the coats of arms of the Lord-Lieutenants of the County of Middlesex. In the tracery, immediately above each coat of arms, is placed a figure—surrounded by rich haphazard spots of ornament in colour—representing the different virtues—Justice, Prudence, Fortitude, Peace, Charity, etc. All these windows are executed in rich Norman slabs, giving an exceptional brilliancy, and very wide leads. The colour is concentrated in the figures—where a fine richness of tone is observable—the heraldry, and simple geometrical borders. In Court 1 a similar treatment has been adopted; but here there is no tracery to relieve the larger lights. Accordingly, to break the monotony the arms have been, as it were, dropped in casually, a very happy result being obtained. In the majority of the windows, where no heraldry has been used, the same border effect has been carried out, the colour being obtained there and in the tracery. On the main staircase the coats of arms used in the Council Chamber have been repeated; and other coats of arms, including those of Prince and Princess Arthur of Connaught, are found on the other stairs. A very good effect has been obtained in the justices' luncheon room, the windows here being of a simple geometrical pattern in polished plate, with an occasional windmill, bridge, etc., introduced here and there, painted in line, and relieved with a touch of stain after the style of old wood engravings.

The life-size stone carved figures to groins in the Courts and Council Chamber symbolise Law, Art, Mechanics, and Government, and are ably executed. A characteristic of the wood-carving in Courts 1 and 2 is its symmetry; the details on the canopies being particularly striking, and in keeping with the carving on the thrones proper. The seats in the Courts and Council Chambers are solid oak. The carving of the haffets represents the kings and queens of England from earliest times until the present day; whilst the animals and figures on seat heads and chair handles are typical heraldic forms. The ceiling in the Council Chamber, as in Court 2, is panelled in plaster, intersected by heavy oak beams,



Middlesex Guildhall, Westminster: Detail of Stone Carving.

Mr. J. G. S. Gibson, F.R.I.B.A., Architect.



Hamptworth Lodge: Elevation of one side of Business-Room Framing.
Mr. E. Guy Dawber, F.R.I.B.A., Architect.

which are ornamented at crossings. Some fine carving, in the form of clusters of fruit and heraldic devices, decorate the hammer-beam roof, and the ornamentation is continued in the spandrels. The arches are supported by corbels, the bases of which are carved. There is some tasteful plaster-work in the soffits of the gallery. As in Court 2, there is a dado of panelling to walls; and some rich carving of coats of arms is to be seen on the bench. The panelling and other woodwork in the three courts is of oak, slightly fumed and waxed polished, and the seating is upholstered in morocco.

In the ante-room is a magnificently plastered ceiling, with ornamental border in the form of fruit clusters. Except for a frieze of white plaster, the walls of the committee-room are entirely panelled in oak. The chairs, all finely carved, are upholstered in morocco. This chamber, known as the "Oak Room," has a fine effect. The library is in solid oak; the detail of the carving with its varied design is very attractive; and the oak chimney-piece with its marble fireplace adds to the grandeur. A feature of the building is the fine carving work to practically every door, including the lift gates, the fronts being particularly striking. The corridors and staircases are spacious.

Whilst the solemnity of the whole gives one the impression of a court of justice, the spaciousness and light effects have not that oppressiveness which is characteristic of the usual court atmosphere.

The building was designed by Mr. J. G. S. Gibson, F.R.I.B.A., 5, Old Bond-street, W., who also superintended the whole of the work. Mr. James Carmichael, Wandsworth, carried out the work in the entrance hall and committee-rooms. For the carving, panelling, doors, and upholstered ceiling in the Council Chamber and ante-room Messrs. Wylie & Lockhead, Ltd., Glasgow and London, were responsible; that in Courts 1 and 2 being executed by Martyn, of Cheltenham, who also did the clocks throughout the building. The plaster-work was done by Messrs. Gilbert Seal & Co.; and the stone carving was the work of Mr. Henry C. Fehr, Chelsea, who also supplied many of the models for the wood-carving. Messrs. Abbott & Co., Lancaster, contracted for the stained-glass, leaded lights, and glazing throughout the building. A. F.

New Premises, Institute of Marine Engineers.

THIS illustration is given in connection with the article on the new premises of the Institute of Marine Engineers which appears on page 273.

Hamptworth Lodge, Salisbury.

THESE illustrations are from the actual working drawings of a large brick and timber house recently completed on the edge of the New Forest. A perspective view of the house appeared in our issue of May 16, 1913, and was made from these same detail drawings after the work was well in hand, and is a faithful representation of the building as it now appears.

The work was exceptionally interesting, as all the stonework, leadwork, carpentry and joinery, including all panelling and carving, was carried out on the actual site, sawing and other machinery being erected for such purposes as was necessary, but, as far as possible, everything being done by hand. The result is a sound and workmanlike structure; every piece of the timber-framing is English oak out of the solid, the angle-posts in many cases being out of 10-in. square timbers, and others all in proportion. The general brickwork and the intermediate spaces are filled with bricks 2 in. thick from the Daneshill yards; the stone is from the Chilmarch quarries, both for the external work and for all the chimney-pieces inside.

Knowing that the timbering (though the bulk of it had been felled for many years) would naturally shrink, the walls have been built in two 9-in. thicknesses, with a hollow space between, and the greatest precautions were taken with secret copper flashings to protect any weak spots in the timber-framing, though, apart from that, the old methods of construction have been adopted.

The lead for the rain-water heads, down spouts and eaves gutters, was all cast and worked on the spot, all being different, with crests and initials worked on them.

The floors and finishings throughout all the principal rooms and bedrooms are in English oak, and the entire ground-floor rooms are panelled out with some of the finest English oak obtainable. The bulk of this had been cut into thin planks for more than twenty years and stored on the estate, and when worked into the panellings presented most beautiful flower and grain of a deep rich colour. All the oak throughout has been left entirely untouched from the tool.

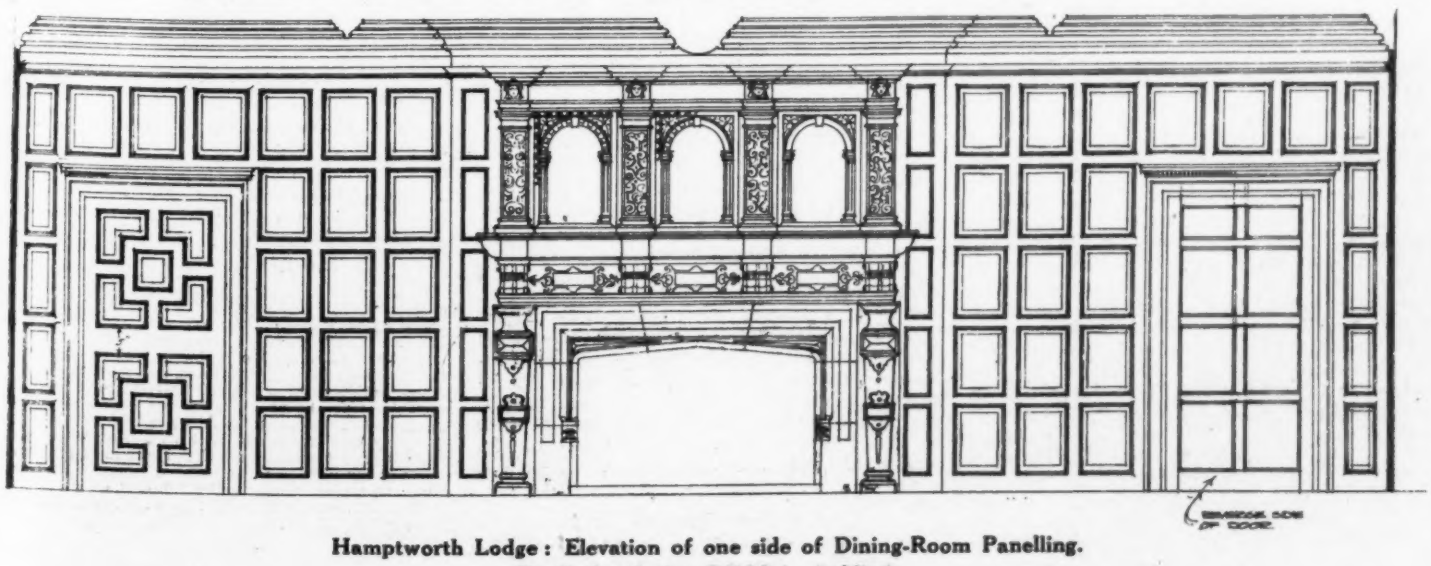
The hinges and furniture to the doors were executed by Messrs. Wm. Morris & Sons, of Rochester-row, nearly all varying in some detail or other.

The plaster-work to the ceilings (where these are not oak) was done by Mr. Geo. P. Bankart, and the general work, including the panellings and fittings of all descriptions, was carried out by Messrs. Mussellwhite & Sons.

Mr. E. Guy Dawber was the architect.

Holywell Cottage Hospital.

WE give this week an illustration of the Cottage Hospital erected a few years ago in the small North Wales town of Holywell. The building is the free gift of Mr. Edwin Jones, J.P., of Peckham, London. The accommodation is as follows:—Male and female wards (with convenient baths and lavatories), nurses' room, visitors' room, private and public dispensary, operating-room, and the usual kitchens, and bedrooms and committee-rooms on the first floor. The cost complete was about £3,000. The architect was Mr. Sam Evans, Licentiate R.I.B.A., F.S.I., etc., the Flintshire County Architect and Surveyor, and the builder, Mr. A. B. Lloyd, of Flint.



Hamptworth Lodge: Elevation of one side of Dining-Room Panelling.
Mr. E. Guy Dawber, F.R.I.B.A., Architect.

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MEETINGS.

FRIDAY, MARCH 19.

Institution of Mechanical Engineers.—Ordinary general meeting. 8 p.m.

Leicester and Leicestershire Society of Architects.—Paper of Mr. Geo. Nott, entitled "Some Recent Architecture in North America." 7.45 p.m.

Royal Sanitary Institute.—Mr. W. C. Tyndale on "House Drainage." 7 p.m.

SATURDAY, MARCH 20.

Royal Sanitary Institute.—Inspection and demonstration at the Sewage and Destructor Works, Ealing. 2.15 p.m.

MONDAY, MARCH 22.

Royal Society of Arts.—Mr. M. H. Baillie Scott on "House Building" (II.) 8 p.m.

Royal Sanitary Institute.—Mr. A. J. Martin on "Sewerage." 7 p.m.

University Extension Lecture (at the Victoria and Albert Museum).—Mr. Banister Fletcher on "German Mediæval Architecture." 4.30 p.m.

TUESDAY, MARCH 23.

London Topographical Society.—Mr. C. L. Kingsford on "The Chief Historical Buildings shown in Visscher's and Hollar's Views of London." 4.30 p.m.

WEDNESDAY, MARCH 24.

Carpenters' Company.—Mr. Selwyn Image on "Life, Work, and Influence of William Blake." 7.45 p.m.

Royal Sanitary Institute.—Mr. A. Martin on "Sewage Disposal." 7 p.m.

THURSDAY, MARCH 25.

University Extension Lecture (at the British Museum).—Mr. Banister Fletcher on "St. Mark's, Venice." 4.30 p.m.

Society of Antiquaries.—Ordinary meeting. 8 30 p.m.

THE LOCAL GOVERNMENT BOARD'S ANNUAL REPORT, 1913-14.

THE Local Government Board have issued their annual Report for 1913-14, from which it appears that the total number of persons in receipt of relief on January 1, 1914, was 761,578, of which London contributed 126,232, but as compared with the previous year there was a decrease of 6,142 in London and 26,507 in the remainder of England, and 1,450 in Wales, making a total reduction of 32,649. Welsh counties, as a whole, show a higher average of pauperism than English counties, and it is a regrettable fact that the lunacy returns as usual show a steady increase. The total expenditure on relief per head of the population is 8s. 2d., the separate average for London being 17s. 4¾d. per head, and for the country 6s. 10½d. An average of 6s. 4¼d. of this amount is defrayed out of rates, and 1s. 4¼d. out of grants under the Agricultural Rates Act, and from County and County Borough Councils.

The average cost per head of paupers relieved by Poor Law authorities is £30 5s. 7¼d. in London as against £16 16s. 6d. in the remainder of England and Wales, the average difference of cost between indoor and outdoor relief being £32 12s. 10¾d. as against £7 10s. 1¾d. For non-Poor Law institutions the cost varies between £22·9 for London and £22 for districts outside London. The difference between the figures for London and the provinces is accounted for by the greater comparative number of specialised institutions there.

The Poor Law Institutions Order contains a provision that after the 31st of this month no child over three years old shall be retained in a workhouse for more than six weeks unless the child is an inmate of a sick ward, and the Local Government Board has done all that they could to impress on Boards of Guardians the necessity for making proper provision for children.

While the number of children in workhouses have steadily decreased, those provided for in other institutions separate from workhouses and boarded out have increased by 11·7 per cent. and 34 per cent. At the present time 77 per cent. of the children receiving relief in the unions of England and Wales and 6 per cent. of those in London are maintained in institutions entirely separate from workhouses. After education in Poor Law schools every effort is taken to procure employment for the children, 1,331 being placed out in the course of the year. Boards of Guardians are also authorised to assist emigration, 419 cases being dealt with in this manner. Orders have been issued for combining certain unions for the treatment of epileptic and feeble-minded cases, the orders being for the Glamorgan Joint Poor Law Establishment Committee, the Staffordshire Joint Poor Law Committee, the Salop Joint Poor Law Committee, and the Northern Counties Poor Law Committee.

Under the Unemployed Workmen's Act, 1905, £100,000 was voted by Parliament, out of which £49,000 was allocated to England and Wales and £5,000 each for Scotland and Ireland. The money expended in London was mainly devoted to the maintenance of the farm colony for the unemployed at Hollesley Park, works in parks and open spaces, and the maintenance of workrooms for unemployed women.

The total number of applications (24,300) represented 2·6 per 1,000 of population, compared with 3·5 for the preceding year. The Old-Age Pensions Act continues to work well.

The remainder of the Report is taken up with inspectors' Reports on a variety of subjects and statistics showing the working of the different departments and sections under the control of the Local Government Board.

GENERAL NEWS.

R.I.B.A. Problems in Design.

The designs submitted under Subject XIX. will be on view in the Galleries of the R.I.B.A. on March 22, 23, and 24, between the hours of 10 a.m. and 8 p.m.

King Edward Memorial, Karachi.

Within three weeks hence will be completed, for the ceremony of unveiling, the Sind Memorial to Edward VII., which stands in the public gardens near the Frere Hall, in Karachi, where it forms a pendant to the Queen Victoria Memorial that was erected eight years ago. The statuary, sculptured by Mr. Hamo Thornycroft, R.A., embraces a colossal figure in marble of the King in his Coronation robe; around the base of the lofty marble pedestal are ranged complementary groups executed in bronze.

Rebuilding of French Houses.

British Columbia millmen have been asked, it is stated, to bid on a contract for 500,000,000 ft. of lumber to be used in constructing 100,000 two-roomed houses in France. The houses are to be built at the expense of the Government for the use of people who have lost their houses and other property in the war.

Proposed Anglo-Russian Building Trades and Decorative Arts Exhibition in Petrograd.

With reference to the notice which appeared on p. 233 of the *Board of Trade Journal* of January 28, reporting an invitation to British societies and persons connected with the building and decorative trades to co-operate with similar interests in Russia, for the purpose of holding at Petrograd, after the war, an Anglo-Russian Building Trades and Decorative Arts Exhibition, it is recommended that all communications on the subject for the Russo-British Chamber of Commerce, 4, Gorochovaia, Petrograd, should be sent in the first instance to the Director, Exhibitions Branch of the Board of Trade, India House, Kingsway, London, W.C.

The Peabody Donation Fund.

In the fiftieth annual Report of the Governors of the Peabody Donation Fund it is stated that the surplus income for the year, from rents and interest, was £45,590 13s. 11d., this return being 2·48 per cent. on the capital of the fund at January 1, 1914, against 2·07 per cent. last year. The total fund on December 31, 1914, was £1,880,624 14s. 4d. The capital expenditure on land and buildings to the end of the year was £1,859,796 17s. 1d. The opening of the ten blocks of self-contained tenements at Rodney-road, Walworth, has been delayed owing to the building strike, but it is hoped these will be ready for occupation in March. An additional block of self-contained tenements will shortly be erected on the Bethnal Green Estate, together with hot and cold baths and steam laundry. At the Blackfriars Estate one of the two small blocks formerly used as a washhouse has been fitted with hot and cold baths and steam laundry, the other is to be reconstructed for self-contained tenements. A small piece of ground adjoining the Shadwell Estate has been purchased, and hot and cold baths with steam laundry have been erected on it. Self-contained tenements are being constructed on the top floor of each block in place of the old washhouses.

Stained-Glass Work.

Mr. Henry Holiday exhibited at his studio some stained-glass windows carried out from his designs. The most important are two for the west windows of the Church of St. Thomas, Washington, U.S.A., the one depicting "Incredulity of St. Thomas" and the other "St. Thomas Preaching at Malabar." The drawing and compositions are of a remarkably high quality, whilst the colours are rich and admirable in blending. In the "Incredulity of St. Thomas," particularly, the disposition of the figures shows just the right balance between naturalesque and conventional effect. The east window is already in position, and Mr. Holiday is now engaged in preparing the designs for the single lights, one of which he also exhibited. Three windows for the main staircase of Toronto University are being designed by the same artist, and one of these was also on view. They are to illustrate the Domestic Arts in Ancient Egypt, the finished one representing "Spinning and Weaving." Mr. Holiday has made a special study of Egyptian Art, habits, and costumes, and has been at great pains to reconstruct the ancient form of looms and their working. As a result, his design is not only a fine work of art, but also a truthful representation of the methods of ancient times. Judging by the sketches for the second window, illustrating "Cooking," the set will form an exceedingly interesting group.

BOOKS RECEIVED.

PAPERS OF THE BRITISH SCHOOL AT ROME. Vol. VII. (London: Macmillan & Co., Ltd. 21s. net.)

THE CHEMISTRY OF PAINTS AND PAINTING. By Sir A. H. Church. (London: Seeley, Service, & Co., Ltd. 7s. 6d. net.)

THE ANTIQUARY, Vol. 50. (London: Elliot Stock. Price 7s. 6d.)

FIFTY YEARS AGO.

The Bath Forum-House Competition.

THE Bath Council have taken a step in this matter, or are about to take one, that will probably have considerable effect in preventing architects from wasting time in competitions for private works, and so far may be useful. They referred the selected first and second designs to Mr. J. A. Clark, of Bristol, to ascertain the probable cost of carrying them out. That gentleman in his report says:—

I have most carefully measured both plans and ascertained the cubic quantities to be as follows:—Mr. Davis's plan, including the balconies, 1,214,165 ft.; and Messrs. Wilson & Wilcox's plan, 912,948 ft.

As near as I can judge in the absence of detail working drawings and specifications, and from the cost of other buildings of a similar description, taking into consideration the proximity of the local stone, I estimate that either design could be carried out with good ordinary new materials, and with suitable internal finishings, b t exclusive of the pipes and extra fittings, heating apparatus of the baths, etc., at 5½d. per cube foot; this price would make the cost of Mr. Davis's design £27,824 12s. 3d., and that of Messrs. Wilson & Wilcox £20,921 14s. 6d.

[*** We give the above extract from the *Builder* of March 18, 1865.]

CONSTRUCTION SECTION.

THE INSTITUTE OF MARINE ENGINEERS.

THE new building which has been erected on Tower-hill for the Institute of Marine Engineers occupies an island site leased from the City Corporation, and a pleasant outlook is obtained from all the principal rooms over the gardens adjoining the Tower. The building, which was executed to the designs of Mr. Victor Wilkins, architect, Adelphi, has frontages to Tower-hill, Royal Mint-street, and Shorter-street, the two former being about 77 ft. long and the latter 38 ft. There are five floors in all, one of which is partly below the pavement level; and there is a height of about 56 ft. from the lowest floor level to the roof over the front portion. The principal entrance is situated on the corner next to Tower-hill, and is brought into prominence by a semicircular stone porch, access being had through this to the entrance-hall, the accommodation on the ground floor consisting of a library 22 ft. by 34 ft., a smoking-room 17 ft. 6 in. by 23 ft., a secretary's room, cloak-room, lavatories, etc. A staircase 5 ft. wide leads to the first floor, where a writing-room and retiring-room are provided, in addition to the large lecture-room, which is over 40 ft. long and about 32 ft. wide. This lecture-room, which will also serve the purpose of a Council room, will accommodate 180 persons, and it extends through the first and second floors with a height of about 18 ft. The building is roofed over this room and only carried higher over the remainder of the site, the second-floor plan showing the upper part of the lecture-room, a billiard-room 27 ft. 3 in. long, with a large ingle, and a lavatory; while the third-floor plan shows the roof over the lecture-room and the caretaker's rooms, which are in the front and consist of a sitting-room, kitchen, scullery, two bedrooms, and a bathroom with water-closet. A separate staircase is provided next to Royal Mint-street for the use of the caretaker and as a secondary means of escape for the members on the lower floors in the event of a fire occurring. The elevations are treated in a very successful manner, with the principal features and all the lower part of the building in Portland stone, with carving symbolical of the profession of the members, and brickwork introduced in the flank and back walls. The lower ground floor, which comes partly below the pavement level, is given up to heating chamber, coals, stores, and lavatory, and the rear portion, which was not required for the use of the Institute, has been arranged with a separate entrance from Tower-hill in such a manner that it can be sublet as offices.

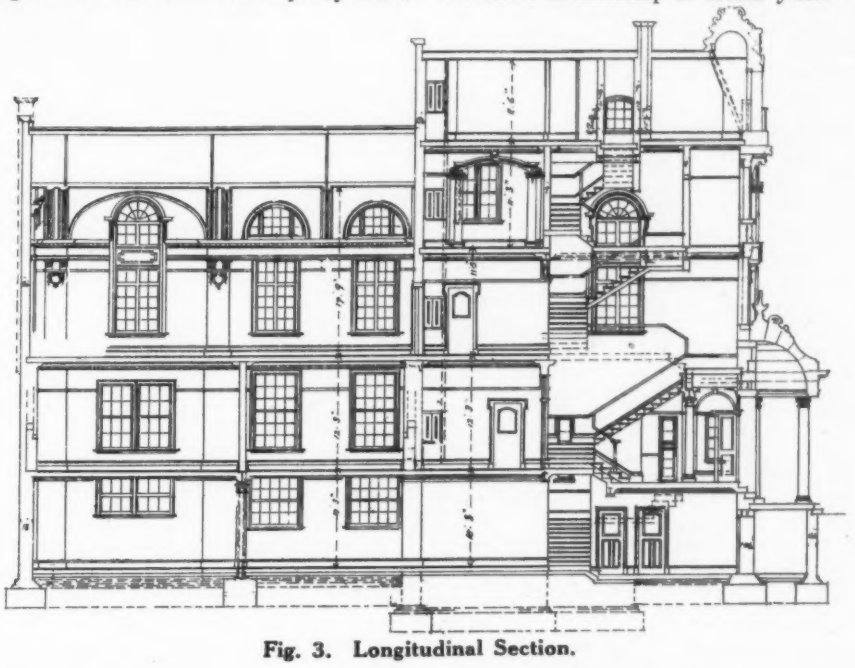
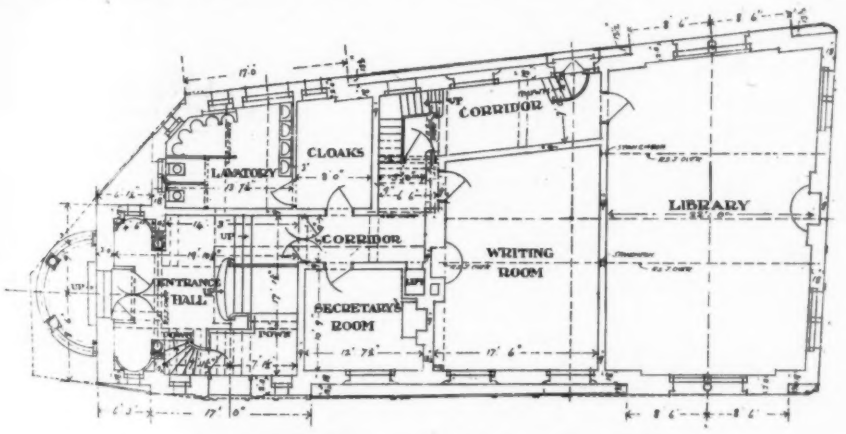


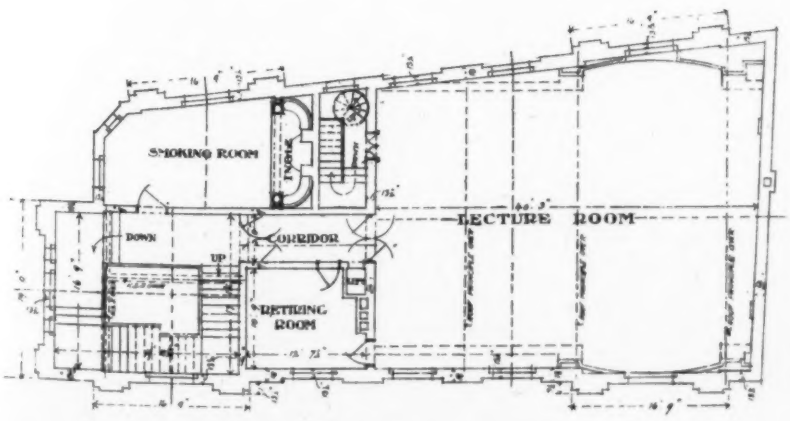
Fig. 3. Longitudinal Section.

The new building forms excellent headquarters for the Institute, which has a membership of nearly 1,500, and the scheme was decided upon in 1910, as the old premises in Romford-road, Stratford, purchased in 1892, were not sufficiently convenient as regards accommodation and position owing to the increased membership of recent years.



GROUND FLOOR PLAN

Fig. 1.



FIRST FLOOR PLAN

Fig. 2.

The foundation stone was laid by the Lord Mayor on October 29, 1913, and the building was inaugurated by the President of the Institute, Sir Archibald Denny, Bart., on January 20 last. The total cost of the work was just under £10,000, and of this amount over £8,000 has been subscribed. The general disposition of the planning will be seen in Figs. 1 and 2, which illustrate the ground and first floors. A section of the building is shown in Fig. 3, this being taken through the lecture-hall; and the exterior treatment is shown in the perspective view given on one of our plates. The whole of the construction is of a fire-resisting character, and is a combination of brickwork and steel. In the majority of cases the interior divisions are of brick, and they act as weight-carrying members; thus there are very few steel stanchions, and the steel-framed principle so commonly used in modern buildings has not been adopted. The type of construction employed is obviously governed to a great extent by the nature of the occupation of the building, as in the case of a structure intended for an Institute such as this the desired accommodation is provided, without question of the interior divisions being altered from time to time, whereas, in the construction of ordinary business premises it is preferable to provide supporting members independently of such divisions, allowing alterations to be easily and economically made to suit different tenants, by the adoption of steel-framed construction. The present structure is also not a very high building, and thus there is no great accumulation of loads at the lower floors which require special supporting members. The floors are constructed with "Mon'lithcrete" joists supplied by the Fawcett Construction Company, 47, Victoria-street, Westminster, who were responsible for the constructional steelwork, these joists being similar to the ordinary rolled steel section, but having openings in the web which allow the concrete to be to a certain extent continuous, and it is claimed that a more homogeneous floor is thus obtained with increased strength. These joists are spaced at centres varying from 2 ft. 6 in. to 4 ft., with the top flange kept 2¼ in. below the finished floor level to allow for the floor finish and bedding; and the sizes employed vary from 4¾ in. by 1¾ in. to 6 in. by 3 in. In the few instances where main steel girders were required these are 12 in. by 6 in. or 16 in. by 6 in. ordinary rolled-steel joists. There are only four steel stanchions in the building, and these occur under the lecture-hall. Two are composed of 5-in. by 4½-in. rolled-steel H-section, with base plates 1 ft. 6 in. square and

½ in. thick; and the other two are slightly larger, being 10 in. by 6 in. on the lower ground floor. A detail of one stanchion with the connections is illustrated in Fig. 5, and this has a base 2 ft. by 1 ft. 9 in. by ⅝ in. thick, with ⅜-in. gusset plates 9 in. high. This illustration is interesting as forming a typical steelwork detail. The roof over the lecture-hall is carried by steel principals having a span of about 30 ft., and these required to have a tie curved for the greater part of the length as a segment of a true ellipse in order to work in with the architect's decorative scheme. The different trusses required to be extended beyond each other to allow for the main walls not being parallel in such a manner that all the trusses had a uniform length on one side of the minor axis of the elliptical curve on which the apex of the roof was situated, while on the other side of this axis the length was not uniform and the truss had unequal principal rafters. The main rafters and curved tie were built up of two 3-in. by 3-in. by ⅜-in. angles in the shortest span, but in the longer spans two 4-in. by 4-in. by ⅝-in. angles were employed, and in addition a 10-in. by ⅜-in. plate was riveted to the top of the rafters for a portion of the length in the centre about 10 ft. long. The struts were formed with 3-in. by 3-in. by ⅜-in. angles, and the ties were composed of two 3-in. by ⅜-in. flat bars.

"Monolithcrete" joists 4¾ in. by 1¾ in. are attached to the top of the principal rafter at about 4 ft. centres to support the roof between the trusses, and similar joists span between the curved tie to support the ceiling. All the rivets in the shortest span are ¾ in. diameter, and in the larger spans ⅞ in. diameter are used, the joint plates being ½ in. and ⅜ in. thick. The shape of the lecture-hall, with the main walls not parallel, requires casing on one side to produce a symmetrical room, and advantage is taken of this by forming alcoves on either side near the platform. A detail of the roof truss is illustrated in Fig. 6, and the decorative treatment of the room is shown in the photographic view of one bay, in Fig. 7. The entablature, which is apparently supported by the consoles shown in the decorative scheme, and the lower part of the curved ceiling, are actually carried by two 6-in. by 3-in. joists, which are slung from the underside of the steel trusses with 6-in. by ½-in. steel straps.

The roof over the entrance porch and the central feature at the top of the building are constructed as stone domes with joggled joints, and are not built up with the assistance of steelwork as is so often the case in modern buildings.

The floors generally are finished with pitch-pine wood blocks, except in the lavatories, etc., where mosaic is used. The doors to the various rooms are in polished teak, with Luxfer fire-resisting glazing, and double windows are provided to all the rooms on the ground floor to prevent the noise from the streets disturbing the occupants. The library is fitted up with polished oak bookcases, and the decorative work in the lecture-hall is in plaster with the walls finished in French grey. A screen has been provided over the platform for lantern lectures, with a gallery over the main entrance-doors at the opposite end for the lantern.

The building has been designed and fitted up to render it comfortable and attractive to the members in the hope that they will frequent the home of the Institute and fraternise to the mutual benefit of one another, and thus the social side of the Institute will be developed.

The general contractors for the work were Messrs. Higgs & Hill, Ltd., Crown Works, South Lambeth-road, S.W.

ECONOMY OF AND IN REINFORCED CONCRETE.*

WHILE great savings can be made in retaining walls it is generally not economical to employ reinforced concrete for the external walls of buildings, as brick walls up to a thickness of 14 in. are cheaper, but that when walls have to be thicker than this reinforced concrete comes in. As, under the proposed London County Council Regulations, nearly all external walls need not exceed 14 in. in a framed building,

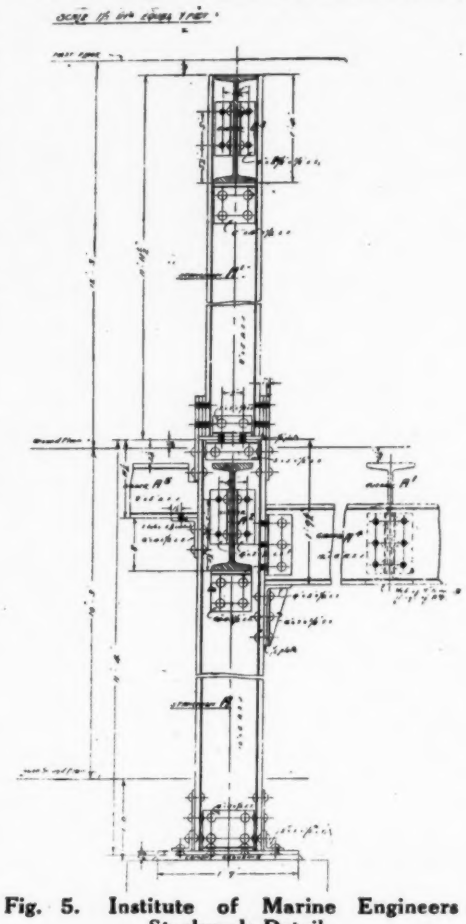


Fig. 5. Institute of Marine Engineers: Steelwork Detail.

it is probable that reinforced concrete walls for this purpose will soon cease to be used, from the point of view of economy.

With regard to the economy of reinforced concrete-framed buildings outside the London area the saving is very considerable; inside the London area the London County Council, by their regulations, propose to reduce it as much as possible. There are, however, opportunities to effect savings over a steel-framed building even in London.

There is another factor which enters into the question of building operations of all kinds, and that is time, and I mention it in this connection because many people are of opinion that the quickest form of construction is steel construction; and if drawings have been prepared a long time in advance so that the steel framework has been fabricated beforehand and is ready for delivery the moment it is required it may be that the steel frame is the quicker, but this is not always so; and starting from the same point—that is, the time when working drawings of both reinforced concrete frame and steel frame are ready, generally some time after the foundations of the building have been started—it is possible, in ordinary times, to obtain steel bars in fourteen days from that date; but it generally takes six weeks to obtain built-up stanchions so that at the beginning reinforced concrete gets a four-weeks' start.

Again, in steel-framed buildings many architects use coke-breeze concrete or broken-brick concrete between the R.S.J. fillers. Neither of these is water-tight; reinforced concrete 4:2:1 is practically so, and in a building constructed some years ago, seven stories high, I remember the plaster-work was started on the ceilings of floors below the fourth before the seventh floor was finished, and, as each of the remaining floors took about a fortnight to do, another month or six weeks was gained on the steel-framed building, as asphalt on the roof would have been necessary to prevent rain coming through the breeze or broken-brick floors and spoiling the plaster.

It seems hardly necessary to mention that in the construction of bridges, say, up to 300 ft. span at least, reinforced concrete is nearly always the most suitable material. There are, of course, exceptions, but the mere question of the cost of maintenance of a steel bridge seems to me enough to condemn it.

The question of maintenance is also enough to decide an architect or engineer to choose reinforced concrete for the construction of, say, small water towers, coal bunkers, gasometer tanks, or any similar structure heretofore built in steel and exposed to atmospheric conditions, even if reinforced concrete is not cheaper in the first instance.

With regard to timber structures the same applies, and, in addition, the relatively greater resistance to destruction by fire makes the advantages of reinforced concrete so apparent that one wonders why timber is employed in the construction of wharves at all.

But to turn to the other side, viz., economy in reinforced concrete, I would like to emphasise a point which, in these strenuous days of competition, seems to be overlooked or, rather, ignored, and that is the enormous amount of waste which occurs through one of the methods adopted by architects to obtain cheap prices for the carrying out of work. An architect prepares the general design of a building and sends sunprints of same to four, five, or even six different firms of specialist designers, who, in turn, prepare each their reinforced concrete scheme and send out to five or six or even more contractors for prices, involving a total of some thirty or forty persons, all of whom spend money and time in tendering, etc. Much valuable time is also wasted which might otherwise be spent in the construction of the building, whilst the various prices and schemes are being compared and adjudicated on. This puts an initial charge on reinforced concrete which might be avoided if the architect or engineer would only choose his system, or employ a consulting engineer accustomed

* Abstract of paper by Mr. T. A. Watson, Assoc.M.Inst.C.E., entitled "Economy of and in Reinforced concrete," read before the Concrete Institute on the 18th ult.

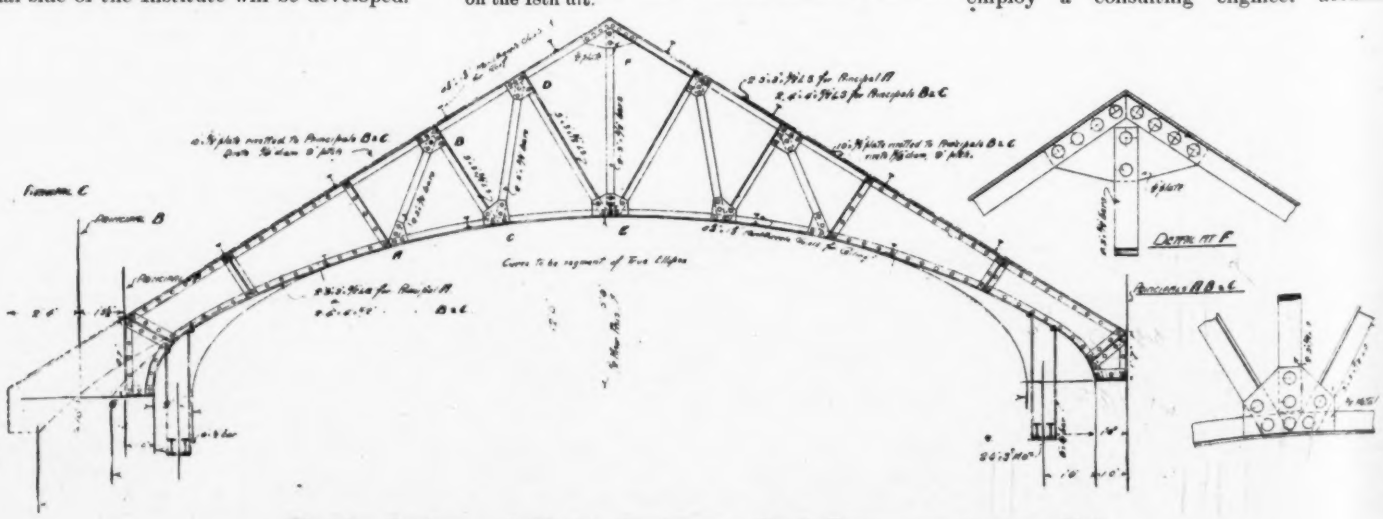
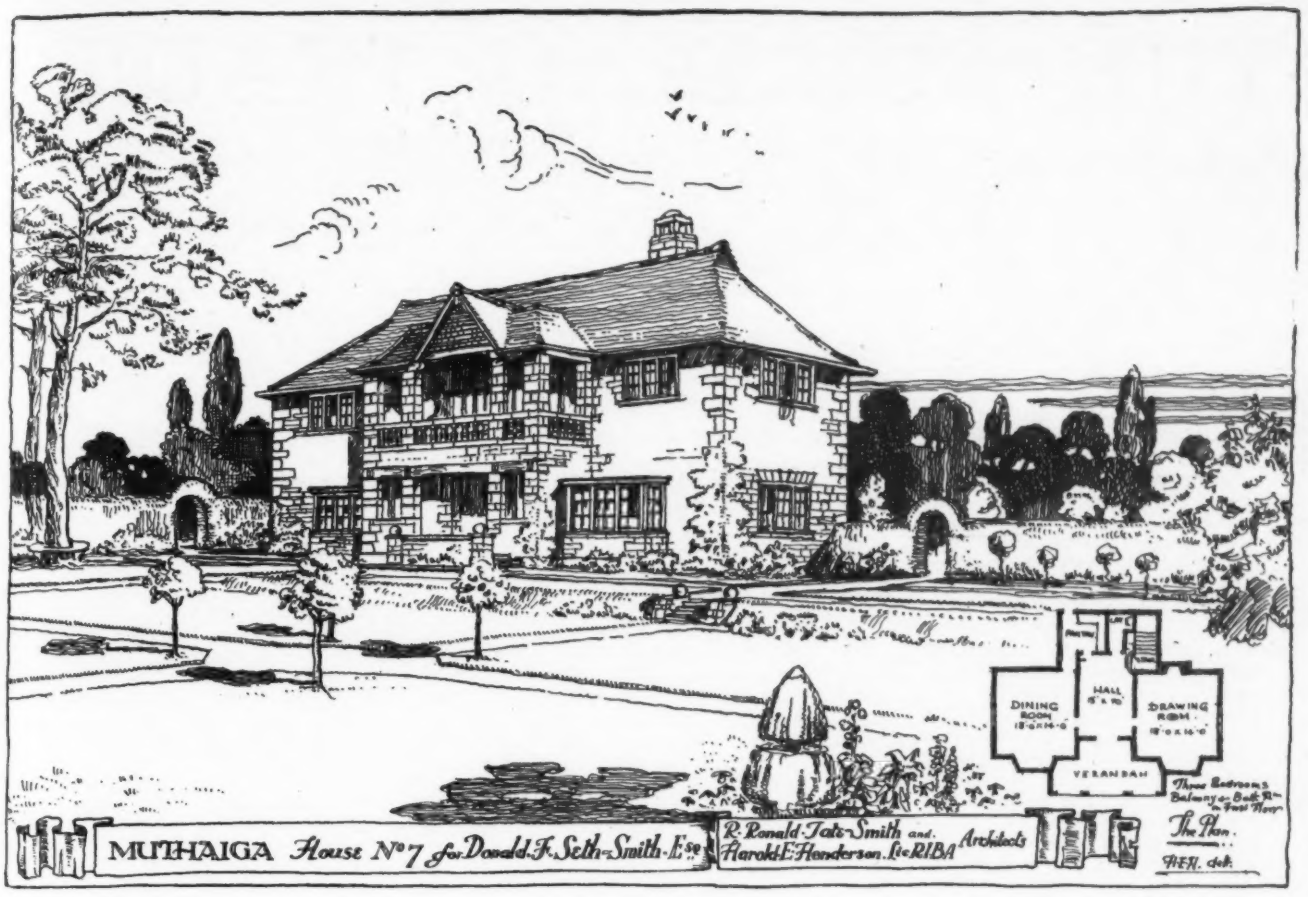


Fig. 6. Institute of Marine Engineers: Roof Truss over Lecture Hall.


MUTHAIGA House N°7 for Donald F. Seth-Smith Esq
R. Ronald Tate-Smith and Harold E. Henderson L.e R.I.B.A. Architects
The Plan.
DINING ROOM
HALL
DRAWING ROOM
VERANDAH
Three Bedrooms Balcony & Bath Rm on First Floor

to the work to design the reinforced concrete work, and then send out for prices in the usual way.

One difficulty with centering is the amount of props required, and if this is left to the foreman in charge of the work it is very likely that the number put in is either too many or too few, and I would suggest to contractors, what has often been suggested before, that great economies might be effected by employing a competent man to design the formwork.

Another point which makes for economy in reinforced concrete, but has more to do with design, is the number of steel bars that have to be handled. It will be readily understood that it is just as easy to handle a $1\frac{3}{8}$-in. diameter bar 25 ft. long as it is to handle one that is only 1 in. diameter, as the weight is immaterial. Again, in this connection I would point out that the $1\frac{3}{8}$-in. diameter bars occupy less space in the width of a beam than the 1-in. diameter bars and the labour cost on concrete may be reduced by 30 to 50 per cent. by the employment of the larger diameter bar. Again, with fewer bars there are fewer ends, and in many cases stirrups or shear members to fix, and the smith's work is correspondingly reduced.

The reading of the paper was succeeded by a discussion in which the following took part :—

Professor Henry Adams, M.Inst.C.E.
Mr. Percy J. Waldram, F.S.I.
Mr. Percy H. Simco
Mr. Ewart S. Andrews, B.Sc.
Mr. Morgan E. Yeatman, M.A., M.Inst.C.E. M.Am.Soc.C.E.
Mr. Archibald Scott, A.R.I.B.A.
Mr. Habib Basta, Assoc.M.Inst C.E.
Mr. W. A. Green, M.A., B.Sc.Eng., Assoc.M.Inst.C.E.
Mr. T. C. Dawson
Mr. W. J. H. Leverton, Licentiate R.I.B.A.
Mr. E. F. Etchells, Assoc.M.Inst.C.E., F.Phys.Soc., A.M.I.Mech.E.
Mr. J. F. Warden

It was announced that the following had been elected a Member of the Institute :—

Mr. Asa White K. Billings, Fellow American Inst.E.E., Member American Society C.E., Member American Society Mech.E., Member Int. Assn. Testg. Materials, Barcelona, Spain.

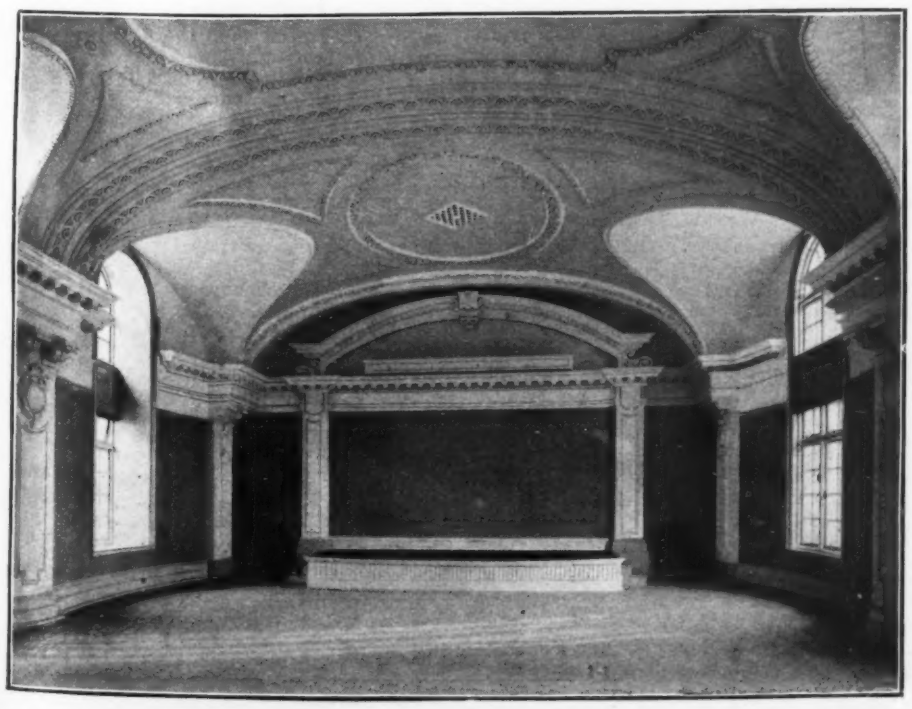


Fig. 7. **Institute of Marine Engineers : End View of Lecture Hall.** (*See page* 273.)

HOUSE AT MUTHAIGA, NAIROBI, B.E.A.

THIS house was erected for Mr. D. F. Seth-Smith in the new garden suburb of Muthaiga. The house is built of local stone, with a roof of cedar shingles. The floors and windows are constructed of oiled cedar, and the internal finishings are made of mouvli wood from Uganda.

Messrs. J. Cook & Co. were the general contractors, the hardware was supplied by Messrs. N. F. Ramsay & Co., of Newcastle-on-Tyne, and the sanitary fittings were obtained from Messrs. Carron & Co. ; Mr. Geo. Fletcher executed the stone carving to the fireplace, and the building was designed and executed under the supervision of Messrs. Tate-Smith & Henderson, architects, of Nairobi, B.E.A., and Kampala, Uganda.

THE TIVOLI SITE, STRAND, LONDON.

Messrs. Farebrother, Ellis, & Co., 29, Fleet-street, E.C., will offer by auction at the Mart, Tokenhouse-yard, E.C., on Thursday, March 25, the valuable freehold building site known as the Tivoli Site. It has an area of about 10,720 super. ft., and is situated on the south side of the Strand, between Charing Cross and Westminster. The site is ready for immediate building operations, and vacant possession will be given upon completion of the purchase. The sale will take place at two o'clock.

DAMAGE TO ROADS BY HEAVY MOTORS.

In view of the complaints which have been made as to damage caused to roads by certain classes of heavy motors and locomotives the President of the Local Government Board has appointed a small expert committee to inquire into the sufficiency of the existing requirements with respect to the construction of these vehicles, including weights on wheels, widths of tyres, diameters of wheels, etc. The terms of reference are :—" To consider the law and regulations relating to the construction and use of road locomotives and heavy motor-cars in Great Britain and to report what amendments, if any, are desirable." The committee will consist of Messrs. E. Shortt, K.C., M.P. (Chairman), A. G. G. Asher, W.S., P. M. Crosthwaite, M.Inst.C.E., H. H. Humphreys, A.M.Inst.C.E., E. J. Lovegrove, M.Inst.C.E., J. E. Thornycroft, A.M.Inst.C.E., and J. Willmot, F.S.I., with Mr. R. J. Simpson, of the Local Government Board, as Secretary.

THE BUILDING TRADE.

LABOUR STATISTICS.

THE Board of Trade have issued recently the seventeenth Abstract of Labour Statistics. It is full of interesting information about employment, production and consumption, wages and hours of labour, prices, cost of living, industrial diseases and accidents, national insurance, workmen's compensation, old age pensions, strikes and lock-outs and their settlement by conciliation or arbitration, associations of employers and workpeople, growth and movement of population, housing, ages and occupations, savings banks and pauperism. The following information relating mainly to the building trade is culled from it :—

As regards unemployment, the mean percentage of unemployment among trade union members of all trades for the years 1900 to 1914 is 4·3. During that period the highest percentage was 7·8 in 1908 and the lowest 2·1 in 1913.

In the building trade during the same period the mean percentage was 6·3, the highest 11·7 in 1909, and the lowest 3·7 in 1901.

Compared with other great groups of trades the building trade is not one of the worst for intensity of unemployment. For instance, during the same period the highest percentage of unemployment in the engineering trade was 11·6, and in the shipbuilding 23·2.

The group that enjoyed the most favourable average employment during the period was that of the miscellaneous metal trades—brassworkers, sheet-metal workers, braziers, farriers, etc.—the highest percentage of unemployment being 4·5 and the lowest 1·6.

In the building trade unemployment was very low in 1900—only 2·6 per cent.—but it gradually increased by about 1 per cent. per annum till 1907, when it jumped from 7·3 per cent. to 11·6 per cent. and 11·7 per cent. in 1908 and 1909, falling back to 8·3 per cent. in 1910, and gradually declining to 3·3 per cent. in 1913 and 1914, when it again began to rise.

A similar progression occurred in the engineering trades during the same period, but in the shipbuilding trade the fluctuations were more marked, and ran roughly in periods of three years' good employment followed by three years' bad.

The furnishing trades followed much the same progression as the building and engineering trades; the printing trades maintained an average unemployment of 4·8 per cent., and varied only about 1 per cent. during the whole period.

Complaints have been made recently about bad time-keeping in certain trades. It is alleged that this is due to the high wages now being earned, but the following facts show that it is no new thing in certain trades. The yearly average of the days worked per week by coal-mines in the principal districts for the period 1900-14 is 5·08; the highest average was 5·33 days a week in 1900, and the lowest 4·87 in 1908.

The average for iron-mines in the principal districts for the same period is 5·6 days a week; for iron and steel works 5·46.

That a great and useful purpose is being served by Labour Exchanges is shown by the fact that in 1913 there were 2,088,735 registrations by 1,267,077 individuals; that 714,270 vacancies were notified, of which 566,150 were filled by 390,141 individuals. The above figures are for men only; large numbers of women and boys were also dealt with.

The percentages of all individuals registered for whom work was found in 1911 was 31 per cent.; in 1912 and 1913, 34·9 per cent. In the above building and construction of works were represented by 447,123 individuals registered as applicants in 1913, being the highest number of any trade. Of these, work was found for 139,179. As regards production and consumption there are no statistics for the building trade.

A review of the changes in wages in the period 1880 to 1913 is given by means of index numbers, the year 1900 being taken as 100 and the other years compared therewith, from which it appears that in 1880 wages in the building trade were 85·6 per cent. of what they were in 1900; that they remained nearly stationary until 1889, and then rose gradually until 1900, then remained stationary until 1912, when a further rise began, which had brought the wages level, in 1913, to 4·4 per cent. above that of 1900. As to the methods by which wages were raised in the building trade, it is shown that in 1913 the number of individuals whose claims were settled by conciliation, arbitration, or other negotiation without resort to strike was 141,055, while the number similarly settled after striking was 48,816. Incidentally it appears that the largest number in the first case were settled by other negotiations; while in the second case they were settled by arbitration, which is what might be expected, since once the parties fall out the best means of settlement must necessarily be by resort to arbitration or conciliation.

Another point of interest is that where settlements are made without a strike more than twice as many are arrived at through the agency of conciliation as by arbitration; but after a strike this is reversed.

Some reduction in the hours of work per week in this trade has occurred in the period under review—mainly in the years 1905, 1909, 1912, and 1913; in the latter year the aggregate net decrease per week in hours was 52,381.

Profit-sharing schemes, it appears, numbered 152 at June 30, 1914, of which only two existed in the building trade, affecting 128 permanent and 180 casual employees, which last, it will be observed, much exceeded the former; in the case of most of the firms and trades which adopt profit-sharing the reverse is the case. No doubt the large proportion of casual labour in the building trade acts as a deterrent of profit-sharing.

A large number of profit-sharing schemes fail. Out of 328 firms which had adopted it, 171 subsequently abandoned it. Of the various methods of sharing profits the most popular appear to be those which pay the bonus in cash; next those which pay part in shares and retain part for provident purposes; then those which pay part in shares and part in cash. The main cause for abandoning profit-sharing appears to be apathy on the part of employees and dissatisfaction of employers with the result. It would appear that profit-sharing is not a really attractive proposition to workpeople as carried out at present. The percentage of bonus averages about 5 per cent. on the wages of the participants. It is not unlikely that the amount is so small and comes at such lengthy intervals that it fails to impress the imagination of the workpeople. It is possible that the length of interval is the chief reason for this, seeing that the same amount of bonus is found attractive by the co-operative retail societies.

The changes in the prices of foods, minerals, and metals are tabulated at considerable length by the system of index numbers. The year 1900 is taken as 100, and it is shown that the wholesale prices of forty-seven articles of consumption by the people were, in 1873, as much as 51·9 per cent. above those of the year 1900. Since 1873 a gradual fall occurred until, in 1896, they were 11·8 per cent. below 1900; since which they have gradually advanced to 16½ per cent. in 1914 above those of 1900. Retail prices have followed much the same progression, and in 1914 stood at 16·8 per cent. above the normal of 1900. These changes are reflected in a further series of tables giving the cost of living of the working classes in a number of large towns, by which it appears that the cost (including rent) has risen 8 per cent. to 13 per cent., according to the district selected—the former figure applying to London and the latter to Lancashire and Cheshire.

(To be continued.)

THE NORTH-WESTERN BRANCH OF THE NATIONAL FEDERATION OF BUILDING TRADES EMPLOYERS.

WE take the following from the February Report :—

Organisation Work.

Since the last report general meetings and annual dinners of local associations have been attended by officers of the Federation at Accrington, Blackburn, Crewe, Macclesfield, Widnes, Westhoughton, Llandudno, and East Flintshire.

Conditions of Tendering.

After considering recommendations from several of the branch trade committees and local associations, it was resolved to authorise and recommend the members to adopt the following foot-note (in the form of a gummed slip) when tendering :—

"This tender is based upon the normal rates of wages and materials prevailing at the date of sending in tender. Any advance in cost, which shall be proved to the satisfaction of the architect to be unavoidably and exclusively due to war conditions, to be adjusted at the completion of the work.

Any delay in the delivery of materials or goods, due exclusively to the same cause, shall be the subject of a reasonable extension of time.

This tender is given subject to acceptance within seven days from date.

N.B.—This slip has been approved for the use of our members during the war by the North-Western Federation of Building Trades Employers."

H.M. Office of Works and Daywork Charges for Apprentices.

As a result of the deputation which had waited upon Lord Emmott in January last with respect to this matter, a letter had been received which was not deemed satisfactory, and it was resolved to recommend the members not to employ apprentices on Government work.

Legal Assistance to Members.

After considering the position of a Colwyn Bay member with respect to a contract, it was resolved that the case should be placed in the hands of the Federation solicitor if a final certificate in accordance with the agreement were not issued within four days.

A New Mills member was interviewed, and stated that a building owner was making a claim against him for damage through damp walls, although the house has been built according to the architect's instructions. After discussing the case at some length it was resolved to refer the matter to the Federation solicitor for his opinion.

Another case was considered where a St. Helens builder is being threatened with an action for expenses incurred in putting in a new floor to replace the original one because dry-rot had set in. As the job had been completed some two and a half years ago under the supervision of a clerk of works, who had passed the building on its completion, as had also the Corporation Building Surveyor, the Legal Advisory Committee recommended the builder to acknowledge no liability, and instructed the Secretary to get further particulars.

The Secretary reported that he had successfully supported one of the New Mills members in a claim for extras where an architect had been trying to get three-coat plastering done at a two-coat price.

Reinstatement of Enlisted Apprentices.

It was resolved to recommend the reinstatement of apprentices who have joined or who may join His Majesty's Army or Navy upon their return from active service, and that they shall count the time spent in such service as if worked in the term of apprenticeship; and to further recommend that, upon the return of an apprentice, they pledge themselves to do all in their power to give him every opportunity of attaining a journeyman's proficiency in his craft.

HOUSES, MANSFIELD, NOTTINGHAMSHIRE.

A Local Government Board inquiry was held at Mansfield recently in respect of an application by the Town Council for a loan of £7,400 to purchase land and erect workmen's dwellings thereon. Mr. T. P. Collinge, Borough Surveyor, and others gave evidence. The Surveyor pointed out that since the prices of these cottages were prepared the price of timber had gone up 30 per cent. In the last ten years 3,368 houses had been built in Mansfield, and 90 per cent. were workmen's dwellings. The scheme provided for twenty houses to the acre. There was no opposition to the scheme.

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INCORPORATED INSTITUTE OF BRITISH DECORATORS:

A COMPARISON BETWEEN SIMPLE AND ELABORATE SCHEMES OF COLOUR FOR DOMESTIC DECORATION.

A MEETING of the Incorporated Institute of British Decorators was held on March 9 at Painters' Hall, Little Trinity-lane, E.C., when Mr. Ronald G. Barker read a paper entitled "A Comparison Between Simple and Elaborate Schemes of Colour for Domestic Decoration." In the course of his remarks Mr. Barker said :—

"Before proceeding with my subject I would like to suggest some reasons for the success or failure of any scheme of decoration. Certain tests given by our Principal, Mr. B. J. Fletcher, of the Leicester School, for a design, might well be applied to a decorative scheme, though we must add to them "technique," without which the effectiveness of any decoration is endangered.

Does the design fit its place and material ?

Is it in scale with surroundings and itself ?

Is it fair and lovely in colour ?

Has it beauty and invention, thought and poetic feeling ?

Is it in every way practical ?

These desirable qualities are only fulfilled when the artist responsible for the design and arrangement of the colour scheme adjusts his patterns and colours in the room. The tone of the light varies to such an extent that it is impossible to prepare the actual colours away from the job. Should this be partly done to save time they will need final arrangement and juxtaposition on the spot. I cannot lay too great a stress upon this point, as it is the chief cause of disappointment when the artist himself does not supervise the work. It is impossible for another, who realises imperfectly the intentions of the artist, to render sympathetically a scheme of decoration. The slight difference of tone in the predominant colour, or the exact nicety of contrast in complimentaries, would upset the whole scale and make all the difference between real beauty of harmony and a very ordinary effect, lacking in richness or delicacy.

It is also dangerous to say that because a scheme was successful in one place an exact copy of colour would be equally satisfactory for another. A slight alteration towards coolness or warmth may be all that is necessary, but that must be determined on the spot, under the influence of the correct lighting, and amid those surroundings with which it must finally form a scheme of perfect harmony, beautiful and thoroughly satisfying. In proof of this from experience, when having completed a successful scheme of colour, I have taken specimens of the actual colours used, thinking thus to save time at some future date, by saying to the workman in charge, "match this and that," believing that I should get the result I wanted. Never once have I been thus rewarded, either he did not see the purity in the grey, and had made it from black and white, or it was not suited to the lighting and the other accessories, which must necessarily form part of the scheme.

The preference for certain colours, such as those reds, full and mellow in tone, in which there glows a suggestion of pink; blues, fresh in colour, medium in tone, inclining neither to green nor violet, ringing clear as a bell ; yellows, pale, full or golden, neither gaudy nor out of place, giving freshness and life to quiet cool schemes ; greens in their infinite variety, which only the cultivated colourist can fully appreciate, mainly comes from experience and much experiment with the pallette. Even then one must guard against distinct preference for certain colours, which may often prove dangerous.

The influence of artificial light plays an important part in our schemes, though I have found, except in isolated cases, that a successful scheme by daylight is also satisfactory under the altered conditions, yellows and lavenders and pale tints of these being the most influenced. We should remember that in all schemes where stained glass has been a guiding influence in the arrangement, this influence is banished with the daylight, and the effect must not then seem wanting or incomplete. Perfect back-grounds for pictures, a full middle tint for depth, for sculpture a colour clear enough to assimilate with the white, of a tint to catch the transparent effects, and also the shadows of the marble. Principles once realised and proved are not easily forgotten.

I believe it was Mr. Duveen, in his interesting book, who said (in reference to colour), "Symmetry is repose, variety is action, tone and proportion are character."

True harmony of complete and various colours can only be made when there is proper balance of cold and warm colours so used that they enhance one another, though, as a general rule, warm colours when in not too high a key, are more pleasing than cool colours."

Mr. Pitman proposed a vote of thanks to the lecturer for his interesting paper, the motion being seconded by Mr. Shuffrey and supported by Messrs. Hindley, Stewart Greene, Anderson, and Dakin. Mr. Deputy Ellis, who took the chair in the absence of Mr. J. D. Crace, President, put the vote of thanks to the meeting, and it was carried.

PROPOSED NEW BUILDINGS AND OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works, at the time of publication, have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; L.G.B. for Local Government Board; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ARBROATH.—Plans have been approved for an addition to Spring Garden Factory for Messrs. David Corsar & Sons, and for a store at the Abbey Leather Works.

Ashby-de-la-Zouch. — The U.D.C. have approved plans submitted by Messrs. E. & H. Smedley for alterations to the Blue and Green Coat School, which is to be converted into an Oddfellows' Hall.

Ashton-under-Lyne.—Plans passed by T.C. :—Mr. H. Ryan, internal alterations to shop in Stamford-street; the Lancashire E.C., secondary school, Stamford-street.

Ayr.—The Dean of Guild Court have passed plans for the erection of a tuberculosis hospital at Hunter's-avenue for the Corporation at an estimated cost of £3,480.

Barnoldswick.—Plans passed by U.D.C. :—Alteration of shop in Church-street for Messrs. Rothwell & Co.; alteration of house, No. 39, Albert-road, into a shop, for Mr. Matthew Hartley; alteration of No. 15, Albert-road, for Mr. C. Roper; alteration of No. 41, Albert-road, into a shop for Mr. S. Thornton; and ten houses in Gisburn-road, for Messrs. Clegg Bros.

Barnsley.—The T.C. have decided to proceed with the erection of a new Town Hall, accepting tenders amounting to £22,465.

Batley.—Plans passed by T.C. :—Five houses in Mill-lane for Miss Lily Mann; motor-wagon shed at Blakeridge Mills, for Messrs. J. T. & J. Taylor, Ltd.; works at Grange-road for Messrs. Howgate & Co.; eight houses at Oxford-street for Mr. H. Booth; paving and draining part of Savile-street, Batley Carr, for Lord Savile; and for a warehouse at Carrdyke Mills for Mr. H. F. Shaw.

Brigg.—The R.D.C. have decided to apply to the L.G.B. for their sanction to the Council borrowing £2,408 for the erection of twelve workmen's dwellings in South Killingholme, and £2,416 for a similar number in Goxhill.

Broadstairs.—Plans for two houses in Westcliff-road for Mr. J. T. May are before the U.D.C.

Bucklebury.—Plans for alterations to the "Bladebone" Inn have been passed by the Berks County Justices.

Cannock.—The U.D.C. have approved their Surveyor's plans and estimates for the erection of houses at Belt-road, Hednesford, and in Beech Tree-lane, Cannock. The Hednesford scheme comprised eight pairs of houses Design A and four pairs of Design B, the estimated cost of the same being £5,571 3s. 4d. The Cannock scheme comprised ten pairs of houses Design B, at an estimated cost of £5,104 8s. 4d.

Cardiff.—Plans have been prepared by Messrs. W. & T. R. Milburn, of Sunderland, for the rebuilding and enlargement of the Cardiff Empire for the Moss Empires Company. The estimated cost of the scheme is about £35,000. The builders will be Messrs. E. Turner & Sons, of Cardiff.

Carlisle.—Plans passed by R.D.C. :—From Mr Slack, architect, Carlisle, on behalf of Mr. Ronson, Broadwath, Carlisle, for additions to Hen Moss Farmhouse; from Mr. Martindale, on behalf of the Dean and Chapter, Carlisle, for the conversion of part of stable buildings as additions to a cottage at Newbiggen Hall; and from Messrs. John Laing & Son, builders, Carlisle, on behalf of Miss F. L. Say, Streatham, London, for the erection of a dwelling-house on land abutting the Wigton-road. The T.C. have approved the Surveyor's plans for twenty-four houses at Willow Holme and twelve at Boustead's Grassing.

Carnarvon.—Plans of four new houses at South Penrallt for Mr. Richard Jones, Llanwnda, have been approved.

Chatham.—Plans passed :—Garage at rear of No. 345, High-street, for Messrs. Gurr & Son; two houses, Kingswood-avenue, for Mr. H. P. Hughes; and a house at Holcombe-road for Mr. Baker.

Colwyn Bay.—A L.G.B. inquiry has been held into the application of the U.D.C. for sanction to borrow £35,000 to erect a destructor and an electricity generating station on land bought for the purpose adjoining the London and North-Western Railway at Bronyant.

Crosshill.—The Scotch Education Department have called upon the School Board of Crosshill, Ayrshire, to erect a cooking-room and a manual-instruction room, and in view of this the School Board have decided to rearrange their existing school accommodation. The cost of the whole work will be £1,200.

Darlington.—Plans passed by T.C. :—Two houses in Thompson-street West for Mr. G. S. Dransfield; three houses in Milland-street for Mr. J. E. Chilton; new streets in Durham-road for Mr. George Dickinson; two houses for Messrs. R. Blackett & Son in Tower-road; three lock-up shops in Bondgate for Messrs. Kitching & Lee; three houses for Mr. J. E. Chilton in Pierremont-road; twelve houses for Mr. J. Walker in Thirlmere-road; and the rebuilding of the "Havelock Arms," Haughton-road, for Mr. Douglass Crawford. The R.D.C. have passed a plan for a house at Fighting Cocks for Mr. T. E. Dougill.

Droylsden.—The Justices have approved the plans for the rebuilding of the "Dog and Partridge" Inn for Mrs. M. E. Gregory.

Farnham.—Plans passed by U.D.C. :—House, Swingate-road, Mr. W. White; house near the school, Upper Hale, Mr. G. Binfield; additions to cottage, Ridgway Hill-road, Messrs. Lawrence & Cousins; new out-buildings, Prospect House, Hale, Mr. Hewett.

Foleshill.—Plans passed by R.D.C. :—Six houses and a shop, Barton-road, Foleshill, for Mr. T. Harris; additions to a picture palace, Bedworth, for Messrs. Whital & Shute.

Glasgow.—Linings granted by the Dean of Guild Court :—Messrs. Harland & Wolff, Ltd., a pneumatic and hydraulic power-station at Main-street, Govan; Howden Boiler Company, Ltd., Helen-street, Govan, to add to boiler shop there; the Royal Samaritan Hospital for Women, Coplaw-street, mortuary and chapel for the hospital; Mrs. Grace H. R. Garrow, Riverside-road, Newlands, a villa at 17, Montgomery-road, Newlands; Messrs. Arrol & MacGillvray, engineers, 10, Morrison-street, S.S., a machine shop and office at the corner of Three Ell-road and Ballochmorrie Drive, Craighton; School Board of Glasgow, 129, Bath-street, school buildings in North Avenue-road, Mansel-street, M'Farlane-street; Corporation of Glasgow, to take down a portion of the existing building and erect a new hall and library at the Couper Institute, Clarkston-road, Cathcart; the Distillers' Company, 12, Torphichen-street, Edinburgh, to alter the Bub-tun House and construct a new gatehouse and cartway at the Adelphi Distillery, Muirhead street; the North British Locomotive Company, Ltd., 110, Flemington-street, Springburn, a forge and smithy at Queenshill-street, Springburn; Messrs. William Beardmore & Co., Ltd., Parkhead, alterations at East Hope-street, and erect a power station at Hart-street; Mr. James Downs, joiner and builder, 620, Crow-road, Jordanhill, to erect fourteen terrace houses on the west side of Borden-road, Jordanhill.

Hastings. — Plans passed :—Bungalow at Harrow-lane, Mr. G. E. Arnold, owner, Messrs. C. A. Pigott & Oxley, architects; additions to Mount House, St. Leonards, Miss Waters, owner, Messrs. C. A. Pigott & Oxley, architects; chimney cooling tower at Hastings Tramways Company's Power-station, the Hastings Tramways Company, Messrs. Kincaid, Waller, Manville, & Dawson; open-air shelter at Fairlight Sanatorium, the Committee of the St. Margaret's Home for Consumption, owners, Mr. N. F. Stallard, Medical Superintendent.

Hebburn.—The U.D.C. have approved a plan for thirteen self-contained houses on the west side of Reed-street, to be built by the Palmer Housing Company, Ltd.

Highbridge.—The U.D.C. having resolved to extend the cemetery at a cost of £1,615, a L.G.B. inquiry has been held.

Hinckley.—Plans passed for seven houses in the Ten Fort, Factory-road, for Mr. G. Cooper, of Nuneaton.

Ilford.—The U.D.C. have decided to erect a central library, at a cost of £6,000, on a site at the rear of the Town Hall.

Ipswich.—The Ipswich Industrial Co-operative Society are about to extend their premises in Carr-street.

Leeds.—A L.G.B. inquiry has been held into an application by the T.C. to borrow £15,000 for gas-stoves and £40,000 for alterations to the Gasworks.

Lichfield.—Plans, estimates, and particulars for the erection of twenty workmen's dwellings at the end of Greenup's-row, off Beacon-street, by the T.C., have been forwarded to the L.G.B.

Lowestoft.—The T.C. have agreed that sea-defence work, estimated to total £7,357 (£2,452 on the North Beach and £4,905 on the South Beach, of which latter sum £2,063 was upon the South Pier spur groyne), be carried out, subject to the approval of the L.G.B.

Mansfield Woodhouse.—Plans passed :—Two houses and premises for Mr. J. H. Brown in Morven-avenue; two houses and premises for Mr. C. H. Hill in Morven-avenue; two houses and premises for Mr. Louis Whysall in Morven-avenue; alterations to Messrs. Briggs & Co.'s factory in Grove-street.

Newbury.—Plans have been approved by the Justices for alterations at the "Coopers' Arms."

Newcastle-on-Tyne.—Building work is to be commenced shortly in connection with the Sutton Model Dwellings. The site containing about 2¼ acres, is bounded by Barrack-road, New Mills, Moor-street, Back Jefferson-street, and Derby-street, and it was chosen by the Trustees on the advice of the architect for the scheme.

* See also our list of Competitions, Contracts, etc., on page 279.

Mr. Charles S. Errington, of Grainger-street West. Already the following contracts have been let:—General contractor, Mr. G. H. Mauchlen; railings and gates, Messrs. M. Aynsley & Sons, Ltd.; venetian blinds, Messrs. Stewart & Co.; ranges, baths, etc., Messrs. Cornes & Haighton, London; and the work of demolishing the existing buildings and clearing the site will be pushed forward with all despatch in order that the dwellings may be ready for occupation at the end of 1916.

Panteg.—House in Pontypool-road for Mr. David Deakin.

Romford.—House in Forest-road for Mr. A. Walker.

Sedgefield.—Plans passed for six new houses at Dunning-street, Ferryhill, for Mr. W. Dunn.

Shrewsbury.—Messrs. Alley & MacLellan are about to erect a factory at Old Heath, of which Mr. A. E. Williams is the architect.

Southampton.—The L.G.B. have held an inquiry into the application of the T.C. for sanction to borrow £1,700 for the widening and improving of Welbeck-avenue.

Spalding.—The U.D.C. have decided to submit a revised drainage scheme to the L.G.B., estimated to cost £37,270, exclusive of land, with the proposal that it shall not be proceeded with until after the war.

Stevenston.—It was intimated at a meeting of the Northern District Committee of the Ayrshire C.C. that plans had been submitted on behalf of a syndicate for the erection of 244 semi-detached houses in the parish of Stevenston. This was only part of a larger scheme for providing 536 houses. It was decided to appoint a Committee to co-operate with the Stevenston Committee, so that the work might go forward as quickly as possible.

Wakefield.—An estimate of £4,000 for furniture for the extended portion of the County Hall at Wakefield has been approved by the General Purposes Committee of the C.C.

Warwick.—At a meeting of the Executive Committee of the Warwickshire King Edward VII. Memorial Committee, plans of the Memorial Sanatorium proposed to be erected on Hertford Hill, near Warwick, prepared by Mr. West, architect, of London, and submitted by the Warwickshire and Coventry Joint Committee for Tuberculosis, were approved.

Wath.—Plans of four houses to be erected in Beech-road by Mr. Herbert Hallatt have been approved by the U.D.C.

Willington.—The U.D.C. have passed plans of alterations to Brancepeth House, Brancepeth Colliery, by Messrs. Strakers & Love.

WAGES IN THE BUILDING TRADE.

Birmingham. — On and after April 1 an advance in wages of ½d. per hour will be paid to the stonemasons, carpenters and joiners, bricklayers, and labourers in this district. The rate for stonemasons, carpenters and joiners, and bricklayers will then be 11d. per hour, and for labourers 8d. per hour.

Leamington.—An advance in wages of ½d. per hour (8½d. to 9d.) will be paid to the plumbers in this district as from April 1.

Wolverhampton.—At a joint meeting, representing the various branches of the operatives engaged in the building trade, held on March 5, the following resolution was unanimously passed:—"That in consequence of the greatly increased cost of food and other commodities, application be made to the Wolverhampton and District Building Trades Employers' Association for an increase in wages of 4s. per week as a war bonus towards meeting the increased cost of living, and that we request the Association to receive a deputation of the operatives at an early date."

York.—On and after April 1 an advance in wages of ½d. per hour (8d. to 8½d.) will be paid to the painters in this district.

GENERAL BUILDING NEWS.

ALTERATIONS, ETC., TO HOTEL, FINCHLEY.

Extensive alterations and additions are being carried out to the Railway Hotel, Finchley, the contractors being Messrs. Wm. F. Blay, Ltd., of Railway House, Dowgate-hill, E.C.

TRADE NEWS.

Boyle's latest patent "air-pump" ventilator has been applied to the General Booth Memorial Hall, King Edward-street, Nottingham.

At the request of Messrs. P. Hill & G. Hodge, the partnership lately existing between themselves and Mr. W. Manders, trading as Messrs. W. Manders & Co. (of Leyton), has been dissolved, and, in co-operation with several gentlemen well known in the contracting world, Messrs. Hill & Hodge are commencing business as public works contractors, under the style of the Municipal Contracting and Engineering Company. Since the early part of 1912 they have tendered for and carried out the whole of the contracts obtained by Messrs. Manders & Co., Mr. Manders having been absent in Canada.

The Grosvenor Picture Theatre, Manchester, is nearing completion, and complete systems of heating and mechanical ventilation are being installed by Messrs. E. H. Shorland & Brother, Ltd., of Failsworth, Manchester, the ventilating system providing for frequent changes of air per hour.

RATES OF WAGES IN THE BUILDING TRADE.

THE following are the present rates of wages in the Building Trade in the principal towns of England and Wales. It must be understood that, while every endeavour is made to ensure accuracy, we cannot be responsible for errors that *may* occur :—

——	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Masons' Labourers.	Bricklayers' Labourers.	Plasterers' Labourers.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Aberdare	9	—	9½	9½	—	9	8	6½	6½	6½
Accrington	10	9½	9½	9½	9	9	9½	6½	6½	6½
Altrincham	9½	10	10½	10	8½	10	9	6½	6½	6½
Ashton-under-Lyne	10½	10½	10	10½	9	10	9	6	6	7
Barnsley	9½	9½	9½	9½	9	9	8½	7	7	7
Barrow-in-Furness	9½	10	9½	9½	9½	9½	9½	7	7	7
Barry	9½	9½	9½	10	—	9	8½	6½	6½	6½
Bath	8½	8½	8½	8	7½	8	7½	5½	5½	5½
Bedford	8	8	8	8½	8	9	6½	5	5	5½
Birkenhead	11	11	11	11½	11	11	9½	7	7	7
Birmingham	10½	10½	10½	10½	9½	10½	9½	7½	7½	7½
Bishop Auckland	9	9	9	9	10	9	7½	6	6	6½
Blackburn	10	10½	10	9½	9½	10	9½	6½	7	7
Blackpool	10½	9½	9½	9½	8½	9	8½	6	6	6
Bolton	10	10½	10	10½	10	10	9½	6–7	6–7	6–7
Bournemouth	8½	8½	8½	8½	8½	8½	8	6	6	6
Bradford	10	10	9	9½	9½	10	8½	7	7	7
Bridgwater	6½	6½	6½	6½	6½	6½	6	4	4	4
Brighton	9	8½	8½	8½	—	8	7	6	6	6
Bristol	10½	10½	10½	10½	—	10½	9½	7½	7½	7½
Burnley	10	9½	9½	9½	8	9	9½	7	7	7
Burton-on-Trent	9	9	9	9	8½	9	8½	6½	6½	6½
Bury	10½	10½	10	9	9½	10	9	6	6	6
Cambridge	9½	9	9	9½	9½	9½	7½	6	6	6
Canterbury	8½	8	8	10	—	8½–9	6½	5	5	5
Cardiff	9½	9½	9½	9½	9½	9½	8½	7	7	7
Chatham	8	9	9	9	9	9	7	6	6	6
Chelmsford	8	7½	8½	9	—	7½	6½	5	5	6½
Cheltenham	8½	8½	8½	8½	—	8½	8	6	6	6
Chester	9½	10	9½	9½	9½	9½	8½	5½	6½–6½	5–5½
Chesterfield	9	9	9	8	9	8½	8½	5½	5½	5½
Colchester	8	8½	8½	9	8	9	6	5½	5½	5½
Coventry	10½	10½	10½	10½	9½	10½	8½	7½	7½	7½
Crewe	7	8	7½	9	8	8	7½	5	5½	6
Darlington	9½	9½	9½	10	10	9	8½	6½	6½	6½
Derby	9½	9½	9	9	9	9	8	6½	6½	7
Doncaster	9½	9½	9	9	9	9	8	6½	6½	7
Dudley	8½	8½	8½	8½	8½	8	7½	5½	5½	5½
Durham	9	9	9½	9	10	9	8½	6	6	6½
East Glamorgan and Monmouthshire Valleys	9½	9½	9½	9½	—	—	8½	6½	6½	6½
Exeter	8	8½	8	8½	7½	7½	7	5½	5½	5½
Folkestone	8½	8½	9	8½	8½	8½	7–7½	6½	6½	6½
Gloucester	8	8½	8½	8	8	8½	8	6	6	6
Grantham	8	8	7½	7½–8	7½–8	7	6½	5	5	5
Grays	—	10	10	—	—	9½	8½	7	7	7
Grimsby	9	9	9	9	9	8	8½	7	7	7
Great Yarmouth	8	8	8	—	8	8	6½	5	5	—
Halifax	10	10	9	8½	8½	9	8½	7	7	7
Harrogate	9½	9½	9	9	8	9	8½	6½	6½	6½
Hartlepools	9	10	9½	10	10	10	9	7	7	7½
Hastings	8½	8	8	8½	8	8	7	6½	5½	6½
Hereford	8	8	7½	8½	8	7	6½	5½	5½	5½
Huddersfield	10	9½	9½	9½	10	9	8½	7	7	7
Hull	10½	10	10	10	10	9½	8½	7½	7½	7½
Ipswich	8½	8½	8½	9	9	8½	7	5½	5½	5½
Lancaster	10	10	9	9	9	9	9	5½	6	6
Leamington Spa	9	9	9	8½	9	8½	8	6	6	6
Leeds	10	10	10	10	9	10	8	7½	7½	7½
Leicester	9½	9½	10	10½	9½	9½	9	7	7	7½
Lincoln	9	8½	8½	9	8	8½	8	6	5½	6
Liverpool	11	11	11	11	10½	11	9½	7	7	7
Llanelly	9½	9½	9½	8½	9	8½	8	5½	5½	5½
London	11½	11½	11½	11½	—	1s.	9	8	8	8
Loughborough	9	8½	8½	9	9	8½	7½	5½	5½	5½
Luton	9½	8½	8½	8½	9	8½	7½	5½	5½	5½
Maidstone	9	9	9	9	9	9	8	6	6	6
Manchester	10	10½	10½	11	10	10	9½	6½	6½	7½
Mansfield	8½	9	8½	8½	—	8½	8	6	6	—
Merthyr Tydfil	9½	9½	9½	9½	8½	9	8	6½	6½	6½
Middlesbrough	9	10	9½	10	10	10	8½	7	7	7½
Newcastle-on-Tyne	10½	10½	10½	10½	10	10	9	7½	7½	7½
Newport, Mon.	9½	9½	9½	9½	8½	9½	8½	6½	6½	6½
Northampton	9	9	9	9	8½	9	8	6	6	6
Norwich	8	8½	8½	8½	8	8½	7	5½	5½	5½
Nottingham	10	10	10	10½	9½	10	9	7½	7½	8
Oldham	10½	10½	10½	10	9	10	9½	7	7	7½
Oxford	9½	9	9	9	8	9	8	6½	6½	6½
Plymouth	9	9	9	9	9	9	7½	6	6	6
Pontypridd	9½	9	9	9½	9	9	8	6½	6½	6½
Portsmouth	9½	9½	9½	9½	—	8½	7½	7	7	7
Preston	10½	10½	10	9½	9½	10	9½	5½	6	6½
Reading	8½	9	9	9½	—	9	7½	6	6	6
Rochdale	10	10½	10	10	8½	9½	9	7	7	7½
Rochester	8	9	9	9	9	8½	7	6	6	6
Rugby	9½	9½	9½	9½	8	9½	8½	6	6	6
St. Albans	9	9	9	9–10	9	9–10	8	6½	6	6½
St. Helens	9	9½	10	9½	9½	9½	9½	6	6	6
Scarborough	8½	9	8½	8½	8	9	8	6½	6½	6½
Sheffield	10½	9½	9½	9½	9½	9½	8½	6½	6½	6½
Shrewsbury	8½	8½	8½	9½	—	8½	7	5½	5½	5½
Southampton	8½	9½	9½	8½	—	9½	8½	6½	6½	6½
Southend-on-Sea	9	9	9	9	P'cework	9	7	6	6	6
Southport	10	10	9½	9½	9½	9½	9½	6½	6½	6½
South Shields	10½	10½	10½	10½	10	8½	9	7½	7½	7½
Stockport	10½	10	10	10½	9	10	8½	6	6½–7	7½
Stockton-on-Tees	9	10	9½	10	10	10	9	7	7	7½
Stoke-on-Trent	9	9½	9	9	—	8½	8½	6	6	—
Stroud	7½	7½	7½	7½	7½	7½	7	5	5	5
Sunderland	10	10½	10	10	10	9	9	6½	6½	7
Swansea	9½	9½	9½	9½	8½	9	9	6½	6½	6½
Taunton	7	7	7	7	—	6	6½	4½	4½	4½
Torquay	8	8	8	8	8	8	8	6	6	6
Wakefield	9½	9½	8½	9½	8½	9	8	7	7	7
Walsall	9½	9	9	9	8½	9	8	6½	6½	6½
Warrington	8½	9½	9½	10	8½	9½	8½	5½–6	6	6-6½
West Bromwich	10	10	9½	9½	—	9	8	7	7	7
Wigan	10	10½	9½	9½	9	9½	9½	7	7	7
Windsor	9	9	9	10	—	9	—	6	6	6
Wolverhampton	9½	9½	9½	10	8	10	8	6½	6½	6½
Worcester	8½	9	9	9	8½	9	7½	6	6	6
York	9½	9½	9	9½	9½	8½	8	6½	6½	6½

The mason's rate given is for bankers; fixers usually ½d. per hour extra.

THE LONDON COUNTY COUNCIL.

THE usual weekly meeting of the London County Council was held on Tuesday in the County Hall, Spring-gardens, S.W., Viscount Peel, Chairman, presiding.

The first business of the Council was to elect officers for the ensuing year, and Mr. Cyril Jackson was elected as Chairman, Major Ernest Gray as Vice-Chairman, and Mr. P. A. Harris as Deputy-Chairman.

Tenders.—Tenders were received for the supply and erection of new engines, pumps, and surface condensing plant at the North Woolwich pumping-station.

Adviser on Antiquarian Matters.—It was agreed, on the recommendation of the General Purposes Committee, that, in view of the eminence of Sir Laurence Gomme in antiquarian matters and in matters concerning the history and evolution of London, he be invited, on relinquishing the officer of Clerk of the Council, to become Honorary Adviser to the Council on Antiquarian Matters.

Victoria Embankment—Electric Lighting.—On the recommendation of the Highways Committee, it was agreed that tenders be invited from selected firms for the supply of an electric lighting main for use in connection with the electric lighting of the refuges on the Victoria Embankment.

Bridges, Tunnels, etc.—Painting, 1915-16.—The Highways Committee recommended that tenders be invited from selected firms for the repainting of (1) Albert Bridge; (2) Highgate Archway and the bridge carrying the South-Eastern and Chatham and the London, Brighton, and South Coast railways over Tower Bridge-road; (3) Great Eastern-street bridge and Rotherhithe Tunnel; and (4) Greenwich and Blackwall tunnels.

L.C.C. (General Powers) Bill, 1915.—In the Report submitted by the Parliamentary Committee it was stated that the Council's (General Powers) Bill, 1915, had been read a second time in the House of Commons without opposition. The Committee have prepared an additional provision for insertion in the Bill to give effect to the Council's instruction that power should be sought to enable the Council to provide, maintain, and charge for the use of grounds and apparatus for rifle-ranges in parks and open spaces, and, with the approval of the Parks and Small Holdings and Allotments Committee, have added words to remove any doubts which may exist as to the powers of the Council to consent to the provision of such rifle-ranges by other persons.

OBITUARY.

Mr. Walter Crane, R.W.S.

The death on March 14 at Horsham is announced of Mr. Walter Crane in his seventieth year. Mr. Crane was a Commendatore of the Order of the Royal Crown of Italy, 1903; member, 1882-6, of the Royal Institute of Painters in Oil and Water-colour; Past-Master Art-Workers' Guild; first President and Founder, 1888, Arts and Crafts Exhibition Society; member of Council of Art, Board of Education, and Examiner in Design; member of Council, National Art-Collection Fund; hon. member Dresden and Munich Academies of Fine Arts; member Société Nationale des Beaux-Arts, Paris, 1909; Director of Design, Manchester Municipal School of Art, 1893-6; Hon. Art Director, Reading College, 1898; and Principal, Royal College of Art, South Kensington, 1898-9; Cantor Lecturer, 1889; member Allied Artists' Association, and on the Committee of the Greater London Memorial Society, and an adviser to the Science and Art Department upon art matters relating to Art Schools, the Art Museum, and the Royal College of Art. He won the Silver Medal, Paris (for "The Diver"), 1889; Silver Medal, Royal Society of Arts, for his lecture on "Applied Arts and their Relation to Common Life"; Gold Medal, Munich, for his "Chariots of the Hours," 1895; Gold Medal for mural tile design, Paris, 1900; Gold Medal and Grand Prix, Milan International Exhibition, 1906; and the Albert Gold Medal, Royal Society of Arts, 1904.

Mr. Crane was the second son of Mr. Thomas Crane, a portrait and miniature-painter and Secretary to the Academy, Liverpool. When he was twelve years old his father came to London; as apprentice to W. J. Linton, wood engraver, he was employed in draughtsmanship and upon the drawings of Sandys, Millais, Rossetti, and other artists of the pre-Raphaelite School. When thirteen years old he sold for 10s. his first picture—a copy of a drawing by Ansdell, R.A.; his earliest published work was in a little magazine, "Entertaining Things," 1861. His father's death threw him, when sixteen years of age, upon his own resources. He turned to book and magazine illustration. In 1862 he exhibited in the R.A. rooms "The Lady of Shalott"; in 1863 he brought out his first illustrated work, "The New Forest." Then followed his picture-books, 1865-76—"Baby's Opera," "Baby's Bouquet," "Mrs. Mundi at Home," "Pan-Pipes," "Grimm's Household Stories," "First of May," "The Siren's Hall"—a poem, "Goody Two Shoes," "Reynard the Fox," "Baby's Own Æsop," "Flora's Feast," "Queen Summer"; "Claims of Decorative Art," "Renascence," "A Wonder Book," "The Old Garden," "Merry Wives of Windsor," "Two Gentlemen of Verona" and "The Tempest," "The Faerie Queene," "The Shepherd's Calendar," "The Bases of Design" (1898-9); "Line and Form" and "Don Quixote," "A Masque of Days," "Illustrations and Type Decorations," the "International Bible," "Ideals in Art," "An Artist's Reminiscences," and "India—Impressions" (1907); "William Morris and Whistler" (1911); "The Decorative Illustrations of Books, Old and New," a psalter on vellum, and the "Agricola of Tacitus" (Doves' Press), etc. His chief paintings include "The Renascence of Venus" (Tate Gallery), "The Fate of Persephone" (Karlsruhe), "Crest of the Wave," "Sirens Three," "Europa," "Freedom," "The Bridge of Life," "La Belle Dame sans Merci," "Rainbow and Wave," "Neptune's Horses," "The Swan Maidens," "England's Emblem," "Britannia's Vision," "The Car of Juno," "The World's Conquerors," "Ye Stranger," "The Fountain of Youth," "The Winds of the World," "The Mower," "The Valkyrie's Ride," "A Masque of the Four Seasons," "Prometheus Unbound," and his own portrait, painted by request, for the Uffizi Gallery, Florence (1912), and "Normandy" and "Sicily" (water-colours). He was a frequent contributor to the Grosvenor, Dudley, and New Galleries. In the Turin Exhibition, 1902, a room was devoted to his works. Of his decorative works we may mention his "Alice and Agnes," Red Cross Hall, Southwark (November 9, 1889*); "Cockatoo and Peacock" wall-paper (April 23, 1892*); stained-glass windows, Ark of the Covenant, Stamford-hill, N.; "History of Locomotion"—a plaster frieze, Paddockhurst, Sussex (November 12, 1898*); friezes and mosaics for Lord Leighton's "Arab Hall," for No. 1, South Audley-street, Mayfair, and the façade, Whitechapel Art Gallery; "The Oak," Dulce Domum, Orange-Tree, and "Cockatoo and Pomegranate" wall-papers (October 27, 1900*); "Fox and Pelican" sign, Grayshott, Haslemere; "The Lion," "The Chase," and frieze panels "Electricity" and the "Genius of Mechanical Invention" (1899); Turner Memorial tablet, Cheyne-walk, Chelsea, presented by him; modern examples for L. F. Day's "Alphabets, Old and New" (1899); ceiling and fireplace, Coombe Bank, Sevenoaks; dining-room, No. 1, Holland-park, W.; "The Fates"; friezes, Clare Lawn, East Sheen, Paddockhurst, Sussex, Vinland, Newport, U.S.A.; "Passing a Torch" (1900); West London Ethical Society's Chapel Queen's-road, Bayswater; "The Wind in the Tree"; panels, Women's Christian Temperance Building, Chicago; and the frieze for the galleries, British Art Section, St. Louis Exhibition, 1905. With William Morris he collaborated in the decoration of "The Glittering Plain," and he contributed the article "Arts and Crafts" to the tenth edition (by the *Times*) of the "Encyclopædia Britannica," with several articles to the art magazines. In 1871 he married Mary, daughter of the late Thomas Andrews, of Hempstead, by whom he had two sons and a daughter. Mrs. Crane died in December of last year.

Mr. T. G. Barker.

Mr. Thomas Groome Barker (Messrs. Barker, Ellis, & Jones, Manchester) died suddenly on Saturday last week in his eighty-sixth year. Mr. Barker was a pupil and afterwards a partner of the late Edward Walters, the architect of the Free Trade Hall, Manchester. Mr. Barker assisted in making the drawings for the Free Trade Hall, Williams Deacon's Bank, and many large warehouses and other buildings of that date for which Mr. Walters was architect, and in 1865 he and the late Mr. Ellis took over the practice. Among a long list of his works may be mentioned: The Manchester Grammar School (Langworthy Buildings), the old Stock Exchange (now pulled down); the Commercial Buildings, Cross-street; the *Manchester Guardian* Offices, Cross-street; the Union Assurance Buildings, Chapel-walks; Barton Union Offices, restoration of Flixton Church; the Deaf and Dumb Schools (Pendlebury wing), extensions to the Manchester and Liverpool District Bank and the Williams Deacon Bank, and a number of houses and branch banks in Lancashire and the neighbourhood. It is, however, as a student of architecture that he will be best remembered by his colleagues and friends. He spent a considerable time in Italy, and travelled in France, Belgium, Germany, America, Spain, Greece, and Egypt. He studied the architecture of all these countries, and read copiously in his favourite subject right up to the time of his death.

* Illustrated in the *Builder*.

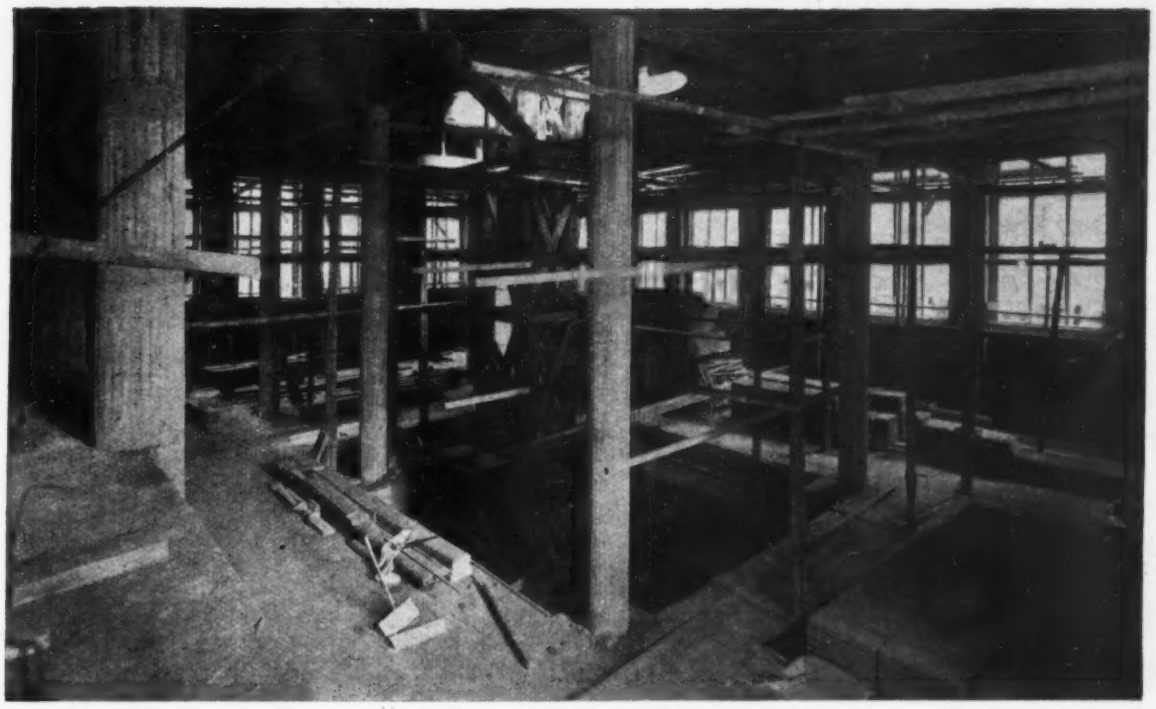
Mr. W. Dyack.

The death occurred at his residence in Aberdeen a few days ago of Mr. William Dyack, C.E., Burgh Surveyor of Aberdeen. The son of a civil engineer, Mr. Dyack was born in Ireland, where he was partly educated. He afterwards removed to Aberdeen, where he completed his education and underwent a training in civil engineering work. He afterwards acted as assistant engineer to the contractors for the Tay Bridge Station and tunnel works for the Newport and Leuchars Railways. For over three years, from 1881 to 1884, Mr. Dyack was on the engineering staff of the Great North of Scotland Railway Company, and in the latter year he was appointed assistant Burgh Surveyor of Aberdeen, succeeding to the head of the department on the death of the late Mr. Boulton in 1892. Mr. Dyack was responsible for the carrying out of many important municipal schemes, such as the new city sewerage scheme, which included the tunnelling of the River Dee.

Mr. William Willett.

It is with regret we have to announce the death of Mr. William Willett, the well-known builder, of London and Brighton, which took place on the 4th inst. at his residence, "The Cedars," Chislehurst Common, after a short illness. The deceased gentleman was only fifty-eight years of age, and consequently he had every prospect of many years of life in which to carry out his successful enterprises which have done so much to raise the standard of estate development for good building and decoration. The firm was founded by his late father about fifty years ago, and the deceased, as soon as he had obtained commercial experience, became connected with it, and it is largely due to his untiring efforts that the business has proved so successful in its undertakings. Commencing with the development of houses in Belsize-court, on the estate of the Ecclesiastical Commissioners, then securing a large parcel of land on the Eton College Estate, he formed the roadway known as Eton-avenue, but encountered many difficulties before that roadway was taken through the property of an adjoining estate to the Finchley-road. After this the development of the Broadwood Estate was in progress, and the several houses erected by the firm and known as Cornwall Mansions, South Kensington, and some of the houses in Cornwall-gardens afford evidence of his care in careful scheming and planning. Houses in Rosary-gardens, Bina-gardens, and Wetherby-gardens are also specimens of his work. Another scheme which he successfully carried through was the development of a part of the Cadogan Estate, by sweeping away all the narrow courts and alleys then existing in and about Lower Sloane-street; that street was rebuilt, Sloane-gardens laid out, and an ornamental garden was created on the site of the courts and alleys mentioned, which has given to London another of these "lungs" so necessary to the welfare of the town-dweller. It is about twenty-seven years since the scheme was commenced, but it was only completed seven years ago, owing to outstanding interests which could not be acquired; the completion comprised the

(*Continued on page* 280.)



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List of Competitions, Contracts, etc.

For some contracts still open, but not included in this List, see previous issues. **Those with an asterisk (*) are advertised in this number:** Competitions, iv.; Contracts, iv., vi., viii., x.; Public Appointments, xx.; Auction Sales, xxii. Certain conditions beyond those given in the following information are imposed in some cases, such as: the advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

*** It must be understood that the following paragraphs are printed as news, and not as advertisements; and that while every endeavour is made to assure accuracy, we cannot be responsible for errors that *may* occur.

Competitions.

MARCH 31.—**Bradford.**—STREET PLANNING.—The Bradford Corporation invite designs for replanning of streets.

APRIL 21.—**Whitehaven.**—HOUSING SCHEME.—The Corporation invite designs for laying-out of the Coach-road site and erection of houses thereon. The author of the design placed first may be employed as architect, or, if not, will receive a premium of 30 guineas; author of second design will receive 20 guineas, and of the third, 10 guineas. Particulars of the Borough Surveyor, Town Hall, Whitehaven. Deposit, £2 2s.

* NO DATE. — **Cheshire.** — COTTAGES.—Messrs. Laver Bros. invite designs for cottages on the Bromborough Estate. Nine premiums are offered.

NO DATE.—**Stepney.**—MUNICIPAL BUILDINGS.—The Stepney B.C. invite designs for the proposed municipal buildings. Conditions may be obtained from Mr. G. W. Clarke, Town Clerk, Municipal Offices, 15, Gt. Alie-street, Whitechapel, E.

NO DATE. — **Whitehaven.** — HOSPITAL. — The Galemire Joint Hospital Committee invite competitive designs from architects for a small hospital proposed to be erected in their district. Particulars of Mr. E. B. Croasdell, Clerk, Union Hall, Whitehaven

Contracts.

BUILDING AND PAINTING.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

MARCH 22.—**Bolton.**—PAINTING.—For painting tramway poles, etc. Specification of Mr. J. Barnard, Tramways Manager, Tramways Offices, Bolton.

MARCH 22.—**Caverswall.**—ENLARGEMENT.—Enlargement of Adderley-green Council school, Caverswall (near Stoke-on-Trent), by the addition of a classroom, cloakroom, etc., for the Staffordshire E.C. Quantities of Mr. Graham Balfour, Director of Education, Stafford. Deposit, £1 1s.

MARCH 22. — **Liverpool.**—HOUSES, ETC.—Erection of two residences for officials and a mortuary at Moss Side Institution, Maghull, near Liverpool, for the Board of Control. Quantities of Mr. O. E. Dickinson, Secretary, the Board of Control, 66, Victoria-street, S.W. Deposit, £1 1s.

MARCH 23. — **Banstead.** — COTTAGES.—Erection of ten cottages at Canons-lane, Banstead, for the Epsom R.D.C. Forms of tender, etc., of Mr. A. C. Williams, Architect and Surveyor, at the offices of the Council.

MARCH 23.—**Halifax.**—INSTITUTE.—Erection of a military institute at Wards End, Halifax, for the Halifax Branch of the Y.M.C.A. Quantities from Mr. C. H. Petty, architect, 12, Waterhouse-street, Halifax.

MARCH 24. — **Bury.**—CONVERSION.—Conversion of the carriage-shed at Bury (E.L.) into a carriage repair shop for the Lancashire and Yorkshire Railway Company. Quantities at the Engineer's Office, Hunt's Bank, Manchester.

MARCH 24.—**Galway.**—DISPENSARY, ETC.—Erection of dispensary and Medical Officer's residence for the Galway B.G. Specification of Mr. H. Macdonald, architect, St. Francis-street, Galway. £1 1s. deposit with tender.

MARCH 25.—**Barnsley.**—HOUSE.—Erection of house in Bond-street Barnsley, for Mr. W. Smith. Quantities of Mr. E. W. Dyson, architect, 10, Regent-street, Barnsley.

MARCH 25.—**Mardy.**—REPAIRS, ETC.—(1) Painting of woodwork and ironwork at the Mardy Athletic Club; (2) sundry repairs to the Mardy Atheltic Club; (3) sundry repairs to the Mardy Conservative Club; (4) painting and decorating Mardy Conservative Club. Specifications of Mr. P. Owen Rees, architect, Pentre.

MARCH 26.—**Cudworth.**—EXTENSIONS.—Extensions and alterations to the Cudworth Industrial Working Men's Club and Institute. Quantities of Messrs. G. Muxon & Son, architects, Church-street, Barnsley.

MARCH 29.—**Hirwain.**—CINEMA.—Erection of new cinema at Hirwain. Quantities of Mr. J. Cook Rees, architect, Parade-chambers, Neath.

MARCH 29. — **Llanelly.**—HOUSES.—Erection of sixty-one houses at Capel, Llanelly. Specification at the Borough Surveyor's Office, Town Hall, Llanelly. Schedule of prices from the Town Clerk, Town Hall, Llanelly. Deposit, £5 5s.

MARCH 29. — **Rishworth.**—ARTISANS' DWELLINGS.—Erection of eight artisan dwellings at Rishworth. Quantities of Messrs. Richard Horsfall & Son, architects, 22A, Commercial-street, Halifax.

MARCH 30.—**Bradford.**—SANATORIUM.—Erection of sanatorium buildings at Grassington for the Bradford Corporation. Quantities of the City Architect, Town Hall, Bradford.

MARCH 31. — **Bristol.**—REPAIRS, ETC.—Repairs, painting, papering, etc., two cottages in Southmead-road; also alternative quotations for demolition of the cottages and erection of two new houses on the site, for the Bristol B.G. Specifications of Mr. J. J. Simpson, Clerk, St. Peter's Hospital, Bristol.

APRIL 7.—**Anglesea.**—SCHOOL, ETC.—Erection of new Council schools at Llandyfrydog and Ty Mawr, and for additions to Council schools at Pentraeth, Llanfachraith, Llaingoch, and Llechyehed, for the Anglesea E.C. Specifications of Mr. J. Owen, County Architect, Menai Bridge.

APRIL 10.—**Clown.**—FENCING.—Erection of approach gates and wing fencing at the Clown Reservoir site, Sparken-hill, Worksop, for the Clown R.D.C. Specification of Mr. James Snow Whall, Clerk, 66, Bridge-street, Worksop.

APRIL 10.—**Egloskerry.**—SCHOOL.—Erection of a new Council school at Egloskerry for the Cornwall E.C. Quantities of Mr. B. C. Andrew, Architect to the Committee, Biddicks Court, St. Austell. Deposit, £1 1s.

APRIL 12. — **Ballinasloe.** — ASYLUM BLOCKS.—Erection of two temporary blocks for male and female patients, each block to accommodate fifty patients, at District Asylum, Ballinasloe. Buildings to be erected in Hy-Rib system of reinforced concrete. Specifications from Mr. G. B. Meenan, 83, Botanic-road, Dublin. Deposit, £2 2s.

APRIL 12. — **Swansea.** — SCHOOL.—Erection of the Baptist Well Council School, Swansea, for the Swansea E.C. Quantities of Mr. A. W. Halden, Clerk, Education Department, Grove-place, Swansea. Applications by March 20. Deposit, £10 10s.

NO DATE. — **Ammanford.** — REBUILDING.—Rebuilding of the Plough and Harrow Inn, Pettws, Ammanford, for Mr. E. Evans Bevan, Neath. Quantities of Mr. J. Cook Rees, architect, Parade-chambers, Neath.

NO DATE. — **Borth.** — HOUSES, ETC.—Building four houses and shops at Borth. Specification of the architects, Messrs. Deakin & Howard-Jones, Plas Ynys, Borth, R.S.O.

NO DATE. — **Handley.** — ALTERATIONS.—Alterations and additions to a house at Handley for Mr. M. F. Coombes. Specifications of Messrs. John Harding & Son, architects and surveyors, Salisbury.

NO DATE. — **Hornchurch.** — WALL.—Construction of a concrete retaining wall, about 216 ft long, in Slewins-lane, Hornchurch, for the Romford R.D.C. Particulars of Mr. G. Lapwood, 16A, South-street, Romford.

NO DATE.—**Llanfihangel-y-Creuddyn.**—ADDITIONS.—Enlarging cloakroom and building coal-house at Llanfihangel-y-Creuddyn Council School for the Cardigan County E.C. Specification of Mr. Geo. Dickens-Lewis, County Architect, Aberystwyth.

NO DATE. — **Old Trafford.**—VILLAS.—Erection of villas, Old Trafford. Names to Mr. Edgar Fitton, 21, Auburn-road, Old Trafford.

FURNITURE, MATERIALS, etc.

MARCH 22. — **Earsdon.** — ROAD MATERIAL.—Supply of road material to the U.D.C. Form of tender of the Surveyor, Mr. J. R. MacMillen, Council Offices, Shiremoor.

MARCH 22. — **Leek.**—MATERIALS.—Supply to the U.D.C. of flags, kerbs, channels, and setts; macadam stone and chippings; limestone and slag tar macadam; Portland cement; sanitary pipes; galvanised malleable manhole step irons; cast-iron gullies and frames, etc. Specification of Mr. W. E. Beacham, Engineer and Surveyor, Town Hall, Leek.

MARCH 22. — **Melton Mowbray.** — ROAD MATERIAL.—Supply to the R.D.C. of about 6,500 tons of broken granite and about 2,600 tons of broken slag. Forms of tender of Mr. Arthur H Marsh, Clerk, Melton Mowbray.

MARCH 22. — **Whitefield.**—MATERIALS.—Supply to the Whitefield U.D.C. of granite macadam, setts, chippings, kerbs, flags, oils, cement, pipes, ironwork, etc. Forms of tender of Mr. G. M. Denton, Surveyor, Council Offices, Whitefield.

MARCH 23. — **Clayton-le-Moors.**—MATERIALS.—Supply to the U.D.C. of flags, channels, kerbs, setts, and broken granite; earthenware pipes; ironwork; pitch, creosote oil, tar compounds, Rocmac solution, etc. Forms of tender of Mr. A. Dodgeon, Surveyor, Council Offices, Clayton-le-Moors.

MARCH 23. — **Poole.**—ROAD MATERIAL.—Supply to the Corporation of granite, basalt, etc. Forms of tender of Mr. Samuel J. Newman, Borough Surveyor, Municipal Offices, Market-street, Poole.

MARCH 24. — **Blaby.**—GRANITE.—Supply to the R.D.C. of granite. Forms of tender of Mr. George E. Bouskell, Clerk, 27, Friar-lane, Leicester.

MARCH 24.—**Bredbury.**—MATERIALS.—Supply to the Bredbury and Romiley U.D.C. of road and other materials. Forms of tender of the Surveyor, School Brow, Romiley.

MARCH 24. — **Great Crosby.** — MATERIALS.—Supply to the U.D.C. of road, sewer, and other materials. Specifications from Mr. Joseph A. Wright, Surveyor, Council Offices, Coronation-road, Great Crosby.

MARCH 24. — **Hemsworth.**—ROAD MATERIAL.—Supply to the R.D.C. of broken and unbroken whinstone, limestone, granite, and dross. Forms of tender of Mr. T. H. Richardson, Surveyor, Hemsworth, near Wakefield.

MARCH 24. — **Longbenton.**—ROAD MATERIAL.—Supply to the U.D.C. of hand-broken whinstone. Forms of tender from Mr. William Bean, Highway Surveyor, Council Offices, Forest Hall.

MARCH 24. — **Oxford.** — MATERIALS.—Supply of road, paving, and other materials to the Corporation. Particulars of Mr. W. H. White, City Engineer, Oxford.

MARCH 24.—**Stalybridge.**—MATERIALS.—Supply to the Corporation of manhole covers, street grids, etc., stoneware goods, pipes and gullies, plain and tarred macadam, artificial limestone, asphalt, cement, pitch, etc. Forms of tender of Mr. J. N. White, Borough Surveyor, Town Hall, Stalybridge.

MARCH 24.—**Strood.**—ROAD MATERIAL.—Supply to the R.D.C. of broken Guernsey and other granites, quartzite, and basalt; tarred macadam; Kentish ragstone, etc. Forms of tender of the Surveyor, Mr. L. Randerson, of Meopham, near Gravesend.

MARCH 24.—**Sudbury.**—MATERIALS.—Supply to the Corporation of broken granite; oils, etc.; cement, etc.; disinfectants; stoneware pipes. Forms of tender of Mr. C. H. Wells, Town Clerk, the Town Hall, Sudbury, Suffolk.

MARCH 24.—**Worsley.**—MATERIALS.—Supply to the Worsley U.D.C. of road, paving, and sewer materials. Forms of tender of Mr. J. Howard, Surveyor, Town Hall, Walkden.

MARCH 25.—**Altrincham.**—MATERIALS.—Supply to the U.D.C. of granite macadam and setts, Rochdale flags, kerbs and setts, and limestone chippings. Forms of tender of Mr. H. E. Brown, Surveyor, Town Hall, Altrincham.

MARCH 25. — **Chatham.** — ROAD MATERIALS.—Supply to the T.C. of broken flints, Kentish rag stone, and artificial stone paving. Form of tender at the Borough Surveyor's Office, Town Hall, Chatham.

MARCH 25. — **Croydon.**—MATERIALS.—Supply to the Croydon R.D.C. of road, paving, and other materials. Forms of tender of Mr. Ernest John Gowen, Clerk, D.C. Offices, Katharine-street, Croydon.

MARCH 25. — **Peterborough.** — MATERIALS.—Supply to the City Council of Portland cement, broken granite, granite kerb, and granite channelling. Tender forms of Mr. J. W. Walshaw, City Surveyor, Broadway, Peterborough.

MARCH 27.—**Abertillery.**—MATERIALS.—Supply of various materials required in the water and gas departments of the U.D.C. Forms of tender of Mr. Leonard J. Langford, Engineer, Gas-works, Abertillery.

MARCH 27.—**East Grinstead.**—ROAD MATERIAL.—Supply of road material to the East Grinstead U.D.C. Forms of tender from Mr. W. E. Woollam, Surveyor, Council Offices, London-road, East Grinstead.

MARCH 27. — **Gateshead.**—MATERIALS.—Supply to the Corporation of road and other materials. Forms of tender of Mr. N. P. Pattinson, Borough Engineer, Town Hall.

MARCH 27.—**Horwich.**—MATERIALS.—Supply of materials for streets, sewers, etc., for the Horwich U.D.C. Form of tender of the Surveyor, Mr. Thos. Green, Council Offices, Horwich.

[Those with an asterisk (*) are advertised in this issue.]

FURNITURE, etc.—*continued.*

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

MARCH 27. — **Maidstone.**—MATERIALS.—Supply to the Kent C.C. of shovels, forks, scavenging brooms, scoops, scrapers, cart grease, tallow, oil, and other tools and materials. Forms of tender of the County Surveyor, St. Peter-street, Maidstone.

MARCH 27. — **Ruislip-Northwood.** — ROAD MATERIALS. — Supply to the Ruislip-Northwood U.D.C. of broken granite, gravel and hoggin, Portland cement, 25,000 gallons of refined tar, etc. Forms of tender from Mr. W. Louis Carr, Surveyor, Council Offices, Northwood, Middlesex.

MARCH 29.—**Crook.**—MATERIALS.—Supply to the U.D.C. of oil, brooms and shovels, and road material. Tender forms from Mr. H. P. Douglas, Clerk, Council Offices, Crook.

MARCH 29.—**Wath-upon-Dearne.**—MATERIALS.—Supply to the U.D.C. of macadam, tar-macadam, kerbs, flags, and setts. Forms of tender from Mr. J. H. Drew, Surveyor, Town Hall, Wath-on-Dearne.

MARCH 30. — **Maldon.** — ROAD MATERIALS.—Supply to the R.D.C. of broken granite, basalt slag, flints, gravel, and picked stones. Forms of tender of Mr. E. J. Ennals, Surveyor, 6, Market-hill, Maldon, Essex.

MARCH 31. — **Carlisle.**—MATERIALS.—Supply to the Electricity Department of ironmongery, packing and jointing materials, lubricating oils, greases, etc. Form of tender of Mr. Fredk. W. Purse, City Electrical Engineer, Victoria-viaduct, Carlisle.

* MARCH 31.—**Mitcham.**—PAINTING AND REPAIRING.—The Guardians of Holborn Union invite tenders for painting and repairing works.

MARCH 31. — **Wolverhampton.**—MATERIALS.—Supply of paving, sewer, road, and other materials to the Corporation. Forms of tender of Mr. G. Green, Borough Engineer, Town Hall.

ENGINEERING, IRON, AND STEEL.

MARCH 22. — **Omoa and Glasgow.** — BRIDGE-WORK.—Renewal of underbridge on Drumbowie Branch, Omoa, and alteration of footbridge at Mount Florida Station, Glasgow, for the Caledonian Railway Company. Specification of the Company's Engineer, Buchanan-street Station, Glasgow. Deposit, £2 2s.

MARCH 22.—**Windsor.**—PIPES.—Supply to the Corporation of about 160 ft. of cast-iron water-main, with bends, specials, etc. Particulars of the Borough Surveyor, Alma-road, Windsor.

MARCH 23. — **Manchester.**—CONVERTER, ETC.—Supply to the Electricity Committee of the Manchester Corporation of one 650-kw. rotary converter and static transformer. Specifications of Mr. F. E. Hughes, Secretary, Electricity Department, Town Hall, Manchester.

MARCH 24.—**Hull.**—SHAFTING, ETC.—Supply and erection of shafting, brackets, pulleys, belting, etc., in tramway workshops, Liverpool-street. Forms of tender at the City Engineer's Office.

MARCH 29. — **Edinburgh.** — ELECTRICITY APPARATUS.—Supply to the Edinburgh Corporation of arc lamp globes, cast-iron pavement boxes, and underground conduit for electricity cables. Specifications of Mr. Frank A. Newington, Engineer, Electricity Supply Station, Dewar-place, Edinburgh. Deposit, 10s.

APRIL 13. — **Canada.** — VALVES.—Construction and delivery of automatic valves and check valves for the Toronto Department of Works. Copy of specification at the Commercial Intelligence Branch of the Board of Trade, 73, Basinghall-street, E.C.

APRIL 19.—**Spain.**—TRAMWAY.—The "Gaceta de Madrid" announces that tenders are invited for the construction and working for sixty years of a tramway for the town of Marmolejo to the neighbouring medicinal springs. The coaches will be drawn by animal traction. Tenders to the "Dirección General do Obras Publicas," Madrid.

APRIL 21.—**Australia.**—MORTISERS.—Supply to the Victorian Railway Commissioners, Melbourne, of horizontal hollow chisel mortisers for Ballarat and Bendigo workshops. Copy of specification at the Commercial Intelligence Branch of the Board of Trade, 73, Basinghall-street, E.C.

APRIL 28. — **Australia.**—LIGHTING.—Supply to the Victorian Railway Commissioners of material for railway-car lighting. Specification at the Commercial Intelligence Branch of the Board of Trade, 73, Basinghall-street, E.C.

ROAD, SANITARY, AND WATER WORKS.

MARCH 23. — **Farnham.** — ROADS.—Cleansing, preparing, tar-painting, and maintaining for three months the whole or any part or parts of the main and district road surfaces within the district of the Farnham U.D.C. Specification of the Council's Surveyor, Council Offices, South-street, Farnham.

MARCH 23.—**Mountain Ash.**—STREET WORKS.—Private street works in Irene-street, Miskin, for the Mountain Ash U.D.C. Quantities of Mr. W. G. Thomas, Surveyor, Town Hall, Mountain Ash

MARCH 23. — **Salford.**—STREET WORKS.—Sewering, paving, and flagging works for the Corporation. Particulars from Borough Engineer, Town Hall Salford.

MARCH 23. — **Wembley.** — STREET WORKS.—Making up of Waverley and Chatsworth avenues, Wembley, for the U.D.C. Quantities of Mr. Fredk. W. Rodd, Clerk, Public Offices, Wembley.

MARCH 24. — **Biggleswade.**—STREET WORKS.—Making up Shortmead-street for the Biggleswade U.D.C. Specifications of Mr. Thomas Cockrill, Surveyor, Market-square, Biggleswade.

MARCH 24.—**South Shields.**—STREET WORKS.—For private street works in Lyndhurst-street and West Back, Lyndhurst-street. Specifications of Mr. L. Roseveare, Borough Engineer, South Shields.

MARCH 24. — **Tamworth.**—SANITARY.—Conversion of privies and pail-closets into water-closets for the Corporation. Specification of Mr. F. E. G. Bradshaw, Borough Surveyor, Municipal Offices, Tamworth.

MARCH 24. — **Wanstead.** — SANITARY.—Weekly collection of household refuse and ashes for twelve months. Particulars at the Council Offices, Wanstead.

MARCH 25.—**Neath.**—GAS MAINS.—(1) Cutting a gas trench; and (2) laying a wrought-iron gas main, etc., from the Cimla Lodge to the site of the proposed Isolation Hospital at the Cimla, Neath, for the Neath Corporation Gasworks. Specifications of Mr. R. A. Browning, Gas Manager, Neath.

MARCH 25. — **Ystradyfodwg.**—SEWER.—Laying of a 39-in. diameter cast-iron pipe sewer on concrete piers in the River Rhondda at Hopkinstown, about 500 yds. in length, including about 100 lin. yds. of 3 ft. 9 in. by 2 ft. 6 in. egg-shaped brick sewer in heading and open ground, for the Ystradyfodwg and Pontypridd Main Sewerage Board. Specifications of Mr. W. P. Nicholas, Clerk, Mill-street, Pontypridd. Deposit, £3 3s.

MARCH 27.—**Wilmslow.**—PAVING.—Concreting and paving of Station-road and Swan-street with granite setts for the Wilmslow U.D.C. Quantities of Mr. A. S. Cartwright, Surveyor, Council Offices, Wilmslow. Deposit, £1 1s.

MARCH 29. — **Kendal.** — FILTER WALLS.—Construction of walls in blue brick to three 100-ft. diameter circular filters at the Sewage Disposal Works. Quantities of Mr. F. W. Oxberry, Borough Engineer, Town Hall, Kendal.

MARCH 30.—**Gateshead.**—ROADS.—For cement path work in position on various roads and streets as may be required for one year. Quantities of Mr. N. P. Pattinson, Borough Engineer, Town Hall, Gateshead.

MARCH 31. — **Richmond.**—PAVING.—Repaving with granite of the roadway of Richmond Bridge and its approaches for the Richmond Bridge Commissioners. Quantities of the Clerk to the Commissioners, 24, Hill-street, Richmond, Surrey, or of the Engineer, Mr. E. Cruttwell, 2, Queen Anne's-gate, Westminster. Deposit, £5 5s.

APRIL 2. — **Axbridge.** — WATERWORKS. — (*a*) Laying about 26 miles of cast-iron socket water-pipes, 6 in. to 3 in. diameter; and (*b*) constructing pumping station, wells, etc., near Eversleigh, in the parish of Banwell, for the Axbridge Union R.D.C. Quantities from the Engineer, Mr. A. Powell, 10, Orchard-street, College Green, Bristol. Deposit, £5.

APRIL 6. — **Glasgow.**—ASPHALTING.—Paving of several streets in the city with compressed rock asphalt. Specifications at the Office of Public Works, 64, Cochrane-street.

APRIL 6.—**Prestwich.**—SEWERS.—(*a*) A 24-in. diameter concrete tube drain for storm water from the overflow to the River Irwell and certain alterations at the Sewage Disposal Works; (*b*) a concrete and concrete tube sewer, mainly 48 in. in diameter, from the Sewage Disposal Works to Bury New-road; (*c*) a 24-in. diameter concrete tube sewer in Bury New-road and Fairfax-road including manholes, crossings, etc., for the U.D.C. of Prestwich. Quantities of Mr. Sydney H. Morgan, Council Offices, Prestwich, Lancs. Deposit, £2 2s.

Public Appointments.

* MARCH 23. — ENGINEERING ASSISTANT. — The County Borough of Dewsbury invite applications for the above temporary post. Salary not stated.

* MAY 10. — CHAIR OF CIVIC DESIGN. — The Council of the University of Liverpool invite applications for the above appointment. Salary, £400 per annum.

* NO DATE.—ASSISTANT STOREKEEPER.—Applications are invited for the above position in the Works Department, Sierra Leone. Salary £250 per annum, passage out, and quarters.

Auction Sales.

* MARCH 22. — **Woodgrange Park.** — Messrs. Robins & Hine will sell by auction at the goods yard a quantity of old timber.

APRIL 13. — **Gloucester.** — Messrs. Burton, Knowles, & Co. will sell by auction the stock, timber, plant, machinery, buildings, etc., of a timber merchant.

* MARCH 24.—Messrs. Churchill & Sim will sell by auction, at the Great Hall, Winchester House, Old Broad-street, E.C., an assortment of deals, battens, boards, timbers, etc.

* MARCH 24.—**New Malden.**—Mr. H. Butcher will sell by auction a stock of builders' general ironmongery.

[Those with an asterisk (*) are advertised in this issue.]

OBITUARY—*Continued from page 278.*

widening of Sloane-square and the approach to Sloane-gardens, also the erection of the Portland stone block of high-class residential flats with shops under, part being occupied by the showrooms and offices of the firm. The development of this project was perhaps the most successful in London. Other buildings on Lord Cadogan's estate include business premises in King's-road and private houses in Sloane-street, Pont-street, and in Draycott-place. Another scheme of his, and perhaps the best and most noteworthy, was the Elsworthy-road portion of the Eton College estate, backing on to Primrose Hill. The estate is very charming, large spaces being left for planting and effect, and, while hedges bound the footways, the restful effect of "The Village Green" has not been overlooked. Mention must also be made of the deceased's work in the development of the Howard de Walden Estate by the removal of the smaller houses in Avenue-road, Regent's Park, near to North Gate, and the building of large houses with ample spaces about them, which affords a most pleasing entrance to that most important thoroughfare. The deceased carried out many improvements at Hove, near Brighton, by laying out and developing The Drive, Wilbury-road, Eaton-gardens, Cromwell-road, etc. He purchased Camden Park, Chislehurst, formerly the residence of the Emperor Napoleon III., and has laid out the roadways on very generous lines and completed many residences of a first-class character, and set apart a portion of the estate which is now held and used by the Chislehurst Golf Club. Recently the firm has erected houses on the Lord Howard de Walden estate at Devonshire-street, Portland-place, Queen Anne-street, Mansfield-street, Weymouth-street, and Harley-street, and further south on the Duke of Westminster's estate in South-street, Mayfair, Upper Grosvenor-street, and Park-street; also in Eaton-terrace, adjoining Eaton-square, on the site of what was formerly the Eaton Chapel, and in Buckingham Palace-gardens, Lygon-place, S.W., etc.; also on Crown lands in Kensington Palace-gardens. He was the purchaser of Clifford's Inn, Fleet-street, at the Mart in 1903. The sale was held by order of the High Court following the dissolution of the Ancient and Honourable Society of Clifford's Inn. Portions of the property have since been sold to the Society of Knights, the Law Union and Rock Insurance Company, and the Crown. His abhorrence of overcrowding, his love of light and open space, are apparent in his work; no matter how many little points in the exterior might be improved by the sacrifice of a little light somewhere inside, yet that sacrifice was never permitted, for he looked on light, and especially sunlight, as all important and worthy of sacrifice in other ways. His great love of light was further shown by his introduction of the Daylight Saving Bill, and which, by his never-tiring energy, has twice been before Committees of the House of Commons. Mr. Willett's son, who has been associated with him in the business for many years, is now the head of the firm, aided by the large and able staff which his father had collected round him.

LAW REPORT.

CHANCERY DIVISION.

(Before Mr. Justice EVE.)

Ancient Lights at Louth: Swabey *v.* Roberts.

HIS LORDSHIP recently had before him this case, it being an action by the Misses Charlotte and Alice Swabey, of Louth, Lincs, against Mr. Ernest Edward Roberts, also of the same town, for an injunction restraining him from interfering with the ancient lights of Nos. 63 and 65, Eastgate, Louth, and calling upon him to remove the obstructing wall. The plaintiffs occupy and own No. 63 and also own No. 65, which is occupied by their brother, Mr. George Swabey.

Mr. Clayton, K.C., and Mr. Dighton Pollock

appeared for the plaintiffs; and Mr. Cozens-Hardy, K.C., and Mr. Wood for the defendant.

The case for the plaintiffs was that in December, 1913, the defendant bought a piece of land adjoining No. 65, and proceeded to pull down the old buildings on it, in order to erect a cinematograph theatre. This, they said, would seriously interfere with the light of the windows and the courtyard of their houses, and they gave the defendant notice that if he went on with the building according to the plans he had had prepared they would proceed against him. However, in April, 1914, he commenced building the theatre, and put up a wall extending the whole length of No. 65, and it was now 22 ft. 8 in. high. This substantially interfered with and diminished the light and depreciated the value of the property.

Evidence in support was given by Sir Wm. A. Gelder, M.P., F.R.I.B.A., F.S.I., of Hull, architect and surveyor; Mr. E. E. Bentley, Licentiate R.I.B.A., of Grimsby and Louth, architect and surveyor; Mr. Fredk. Riggall, Fellow of the Auctioneers' and Estate Agents' Institute, of Grimsby, Louth, and Brigg; and relatives of the plaintiffs.

The case for the defendant was that his plans for the theatre were inspected by the plaintiffs' solicitors several weeks before he began to build, and they knew that a high wall was to be erected. He did not admit that before the wall was erected the rooms were bright and well lighted, or that the wall, in fact, obstructed any light at all. He denied that the plaintiffs had suffered any damage, and that, even if they had any cause of action, they had, by reason of delay and acquiescence, disentitled themselves to an injunction.

He called as witnesses Mr. W. R. Gleave, A.R.I.B.A., architect and surveyor, of St. Peter's-walk, Nottingham; Major R. H. Fowler, Licentiate R.I.B.A., architect and surveyor, of Louth; and Mr. Herbert Thompson, builder and contractor, of Louth.

His Lordship gave judgment for the plaintiffs for £120 damages, of which £20 had been paid into Court to pay for the damage to No. 65. He declined to grant the injunction asked for, saying that the plaintiffs knew a long time before the wall was built what the defendant proposed to do. He awarded the plaintiffs the general costs of the action.

BAPTIST CHURCH, WALTHAMSTOW.

The Greenleaf-road Baptist Church, Walthamstow, is approaching completion. It is a red brick and stone building to accommodate about 700, and it adjoins the classrooms, etc., built a few years since. The architects are Messrs. Thompson & Walford, Leadenhall-buildings, E.C., and the general contractors are Messrs. W. Shurmur & Sons, Riverside Works, Upper Clapton, N.E. The sanitary fittings are by Messrs. John Bolding & Sons, Ltd., Davies-street, W.; the seating is by the Bennet Furnishing Company, Ltd., Glengall-road, S.E.; and the stained glass is by Messrs. Kelley & Co., Earl-street, Finsbury, E.C.

PRICES CURRENT OF MATERIALS.

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.]

Lead and tin prices have advanced since our last issue.

*** Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

BRICKS, &c.

	£	s.	d.
Per 1000 Alongside, in River.			
Best Stocks	1	18	0
Picked Stocks for Facings	2	12	0

Per 1000, Delivered at Railway Depôt.

	£	s.	d.		£	s.	d.
Flettons	1	14	0	Best Blue Pressed Staffordshire	3	15	0
Best Fareham Red	3	12	0	Do. Bullnose	4	0	0
Best Red Pressed Ruabon Facing	5	0	0	Best Stourbridge Fire Bricks	4	0	0
GLAZED BRICKS—							
Best White, Ivory, and Salt Glazed Stretchers	13	0	0	Double Headers	15	10	0
Headers	12	10	0	One Side and two Ends	19	10	0
Quoins, Bullnose and 4½ in. Flats	16	10	0	Two Sides and one End	20	10	0
D'ble Str'tch'rs	18	10	0	Splays and Squints	18	0	0

Second Quality £1 10s. per 1000 less than best.

	s.	d.	
Thames and Pit Sand	7	6	per yard, delivered.
Thames Ballast	6	0	" "
Best Portland Cement	38	0	per ton, "
Best Ground Blue Lias Lime	21	0	" "

NOTE.—The cement or lime is exclusive of the ordinary charge for sacks.

Grey Stone Lime ..... 14s. 0d. per yard delivered.
Stourbridge Fireclay in sacks 27s. 0d. per ton at rly dpt.

STONE.

Per Ft. Cube.

	s.	d.
BATH STONE—delivered on road waggons, Paddington Depôt	1	7½
Do. do. delivered on road waggons, Nine Elms Depôt	1	9½
PORTLAND STONE (20 ft. average)—		
Brown Whitbed, delivered on road waggons, Paddington Depôt, Nine Elms Depôt, or Pimlico Wharf	2	4½
White Basebed, delivered on road waggons, Paddington Depôt, Nine Elms Depôt, or Pimlico Wharf	2	6½

Per Ft. Cube, delivered at Railway Depôt.

	s.	d.		s.	d.
Ancaster in blocks	1	10	Closeburn Red Freestone	2	0
Beer in blocks	1	6	Red Mansfield Freestone	2	4
Greenshill in blocks	1	10	Talacre & Gwespyr Stone	2	4
Darley Dale in blocks	2	4			
Red Corsehill in blocks	2	3			

YORK STONE—*Robin Hood Quality.*

	s.	d.
Per Ft. Cube, Delivered at Railway Depôt.		
Scappled random blocks	2	10
Per Ft. Super., Delivered at Railway Depôt.		
6 in. sawn two sides landings to sizes (under 40 ft. super.)	2	8
6 in. rubbed two sides ditto, ditto	2	6
3 in. sawn two sides slabs (random sizes)	0	11½
2 in. to 2½ in. sawn one side slabs (random sizes)	0	7
1½ in. to 2 in. ditto, ditto	0	6
HARD YORK—		
Per Ft. Cube, Delivered at Railway Depôt.		
Scappled random blocks	3	0
Per Ft. Super., Delivered at Railway Depôt.		
6 in. sawn two sides landing to sizes (under 40 ft. super.)	2	8
6 in. rubbed two sides ditto	3	0
8 in. sawn two sides slabs (random sizes)	1	2
2 in. self-faced random flags	0	5

SLATES.

Per 1000 of 1200 at Railway Depôt.

In. In.	£	s.	d.	In. In.	£	s.	d.
20 x 10 best blue Bangor	13	5	6	20 x 12 ditto	14	5	0
20 x 12 ditto	14	7	6	16 x 8 ditto	7	0	0
20 x 10 1st q'lity ditto	13	0	0	22 x 10 best blue Portmadoc	12	12	6
				16 x 8 ditto	6	10	6

TILES.

At Railway Depôt.

	s.	d.		s.	d.
Best plain red roofing (per 1000)	42	0	Best "Hartshill" brand, plain sand-faced (per 1000)	45	0
Hip and Valley (per doz.)	3	7	Do. pressed (per 1000)	42	6
Best Broseley (per 1000)	50	0	Do. Ornamental (per 1000)	47	6
Do. Ornamental (per 1000)	52	6	Hip (per doz.)	4	0
Hip and Valley (per doz.)	4	0	Valley (per doz)	3	6
Best Ruabon red, brown, or brindle (Edw'ds) (pr1000)	57	6	Staffords. (Hanley) Reds or Brindled (per 1000)	42	6
Do. Ornamental (per 1000)	60	0	Hand-made sand-faced (per1000)	45	0
Hip (per doz.)	4	0	Hip (per doz.)	4	0
Valley (perdoz.)	3	0	Valley (perdoz.)	3	6

WOOD.

BUILDING WOOD.	At per standard. £	s.	d.	£	s.	d.
Deals: best 3 in. by 11 in. and 4 in. by 9 in. and 11 in.	19	0	0 ..	20	12	6
Deals: best 3 in. by 9 in.	19	0	0 ..	20	10	0
Battens: best 2½ in. by 7 in. and 8 in., and 3 in. by 7 in. and 8 in.	17	15	0 ..	19	0	0
Battens: best 2½ in. by 6 in. and 3 in. by 6 in.	0	10	0	less than 7 in. and 8 in.		
Deals: seconds	1	0	0	less than best		
Battens: seconds	0	10	0	" " "		
2 in. by 4 in. and 2 in. by 6 in.	16	0	0 ..	17	10	0
2 in. by 4½ in. and 2 in. by 5 in.	15	0	0 ..	16	10	0
Foreign Sawn Boards—						
1 in. and 1½ in. by 7 in.	0	10	0	more than battens.		
¾ in.	1	0	0	"		
Fir timber: best middling	At per load of 50 ft.					
Memel (average specification)	6	15	0 ..	7	15	0
Seconds	6	0	0 ..	6	10	0
Small timber (8 in. to 10 in.)	5	5	0 ..	5	10	0
Small timber (6 in. to 8 in.)	4	10	0 ..	5	0	6
Swedish balks	4	0	0 ..	4	10	0
Pitch-pine timber (30 ft. average)	8	5	0 ..	9	0	0

JOINERS' WOOD.	At per standard. £	s.	d.	£	s.	d.
White Sea: first yellow deals, 3 in. by 11 in.	33	15	0 ..	35	0	0
3 in. by 9 in.	31	15	0 ..	33	0	0
Battens, 2½ in. and 3 in. by 7 in.	23	7	6 ..	24	7	6
Second yellow deals, 3 in. by 11 in.	27	5	0 ..	28	5	0
Do. 3 in. by 9 in.	25	5	0 ..	26	5	0
Battens, 2½ in. and 3 in. by 7 in.	19	0	0 ..	20	0	0
Third yellow deals, 3 in. by 11 in. and 9 in.	20	2	6 ..	21	2	6
Battens, 2½ in. and 3 in. by 7 in.	17	10	0 ..	18	0	0
Petersburg: first yellow deals, 3 in. by 11 in.	29	10	0 ..	31	0	0
Do. 3 in. by 9 in.	25	5	0 ..	26	5	0
Battens	19	5	0 ..	20	5	0
Second yellow deals, 3 in. by 11 in.	21	10	0 ..	23	0	0
Do. 3 in. by 9 in.	20	5	0 ..	21	10	0
Battens	17	10	0 ..	18	10	0
Third yellow deals, 3 in. by 11 in.	17	15	0 ..	18	15	0
Do. 3 in. by 9 in.	17	5	0 ..	18	5	0
Battens	17	0	0 ..	17	10	0

WOOD (*Continued*).

JOINERS' WOOD (*Continued*)— White Sea and Petersburg—	At per standard £	s.	d.	£	s.	d.
First white deals, 3 in. by 11 in.	22	10	0 ..	24	0	0
First white deals, 3 in. by 9 in.	21	0	0 ..	22	10	0
Battens	18	0	0 ..	19	0	0
Second white deals, 3 in. by 11 in.	20	0	0 ..	21	0	0
Second white deals, 3 in. by 9 in.	19	0	0 ..	20	0	0
Battens	17	10	0 ..	18	10	0
Pitch-pine deals	34	0	0 ..	35	0	0
Under 2 in. thick extra	0	10	0 ..	1	0	0
Columbian or Oregon Pine, best quality	28	0	0 ..	29	0	0
Yellow Pine—First, regular sizes	57	0	0	upwards.		
Oddments	39	0	0	"		
Seconds, regular sizes	43	10	0	"		
Oddments	37	0	0	"		
Kauri Pine—Planks per ft. cube	0	6	9 ..	0	7	6
Oak Logs—						
Large, per ft. cube	0	5	0 ..	0	6	0
Small " "	0	4	0 ..	0	5	0
Wainscot Oak Logs, per ft. cub	0	10	6 ..	0	12	6
Dry Wainscot Oak, per ft. super, as inch	0	0	11 ..	0	1	3
¼ in. do. do.	0	0	10 ..	0	1	0
Dry Mahogany—Honduras, Tabasco, per ft. super, as inch	0	0	11 ..	0	1	4
Selected, Figury, per ft. super, as inch	0	1	6 ..	0	2	6
Cuba Mahogany	0	1	6 ..	0	2	6
Dry Walnut, American, per ft. super, as inch	0	0	11 ..	upwards. 0	1	3
French, "Italian," Walnut	0	0	11 ..	0	1	6
Teak, per load (Rangoon or Moulmein)	28	0	0 ..	34	0	0
Do., do. (Java)	24	0	0 ..	27	0	0
American Whitewood planks, per ft. cube	0	6	6 ..	0	7	6
Prepared flooring, etc.—			Per square.			
1 in. by 7 in. yellow, planed and shot	0	18	0 ..	1	0	0
1 in. by 7 in. yellow, planed and matched	0	18	0 ..	1	0	0
1¼ in. by 7 in. yellow, planed and matched	1	2	0 ..	1	5	0
1 in. by 7 in. white, planed and shot	0	17	6 ..	1	0	0
1 in. by 7 in. white, planed and matched	0	18	0 ..	1	0	0
1¼ in. by 7 in. white, planed and matched	1	2	0 ..	1	5	0
¾ in. by 7 in. yellow, matched and beaded or V-jointed boards	0	14	6 ..	0	16	6
1 in. by 7 in. " "	0	18	6 ..	1	1	0
¾ in. by 7 in. white " "	0	14	6 ..	0	16	6
1 in. by 7 in. " "	0	18	6 ..	1	1	0

6 in. at 6d. to 9d. per square less than 7 in.

JOISTS, GIRDERS, &c.

	In London or delivered Railway Vans, per ton. £	s.	d.	£	s.	d.
Rolled Steel Joists, ordinary sections	9	10	0 ..	10	10	0
Compound Girders, ordinary sections	12	0	0 ..	13	0	0
Steel Compound Stanchions	13	0	0 ..	15	0	0
Angles, Tees, and Channels, ordinary sections	12	0	0 ..	13	0	0
Flitch Plates	12	0	0 ..	13	0	0
Cast Iron Columns & Stanchions, including ordinary patterns	9	0	0 ..	10	0	0

METALS.

	Per ton, in London. £	s.	d.	£	s.	d.
IRON—						
Common Bars	9	10	0 ..	10	0	0
Staffordshire Crown Bars, good merchant quality	9	15	0 ..	10	5	0
Staffordshire "Marked Bars"	11	10	0 ..		—	
Mild Steel Bars	9	15	0 ..	10	5	0
Hoop Iron, basis price	10	10	0 ..		—	
" " Galvanised	18	10	0 ..		—	
(And upwards, according to size and gauge.)						
Sheet Iron Black—						
Ordinary sizes to 20 g.	11	0	0 ..		—	
" " 24 g.	12	0	0 ..		—	
" " 26 g.	13	10	0 ..		—	
Sheet Iron, Galvanised, flat, ordinary quality—						
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	16	0	0 ..		—	
Ordinary sizes to 22 g. and 24 g.	16	10	0 ..		—	
Ordinary sizes to 26 g.	17	10	0 ..		—	
Sheet Iron, Galvanised, flat, best quality—						
Ordinary sizes to 20 g.	18	10	0 ..		—	
" " 22 g. and 24 g.	19	0	0 ..		—	
Ordinary sizes to 26 g.	20	0	0 ..		—	
Galvanised Corrugated Sheets—						
Ordinary sizes, 6 ft. to 8 ft. 20 g.	15	0	0 ..		—	
Ordinary sizes, 22 g. and 24 g.	16	0	0 ..		—	
Ordinary sizes, 26 g.	17	0	0 ..		—	
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	13	0	0 ..		—	
Best Soft Steel Sheets, 22 g. & 24 g.	14	0	0 ..		—	
Best Soft Steel Sheets, 26 g.	16	0	0 ..		—	
Cut Nails, 3 in. to 6 in.	13	0	0 ..	13	10	0
(Under 3 in., usual trade extras.)						

LEAD, &c.

	Delivered in London. £	s.	d.	
LEAD—Sheet, English, 4 lb. and up	26	2	6 ..	—
Pipe in coils	26	12	6 ..	—
Soil pipe	29	12	6 ..	—
Compo pipe	29	12	6 ..	—

NOTE—Delivery in country in not less than 5 cwt. lots. 1s. per cwt. extra.

ZINC—	In casks of 10 cwt.			
Sheet	65	0	0 ..	—

LEAD, &c. (*Continued*).

Delivered in London.

		£	s.	d.		
COPPER—						
Strong Sheet	per lb.	0	1	5	..	—
Thin ,, ...	,,	0	1	7	..	—
Copper nails.....	,,	0	1	5	..	—
Copper wire.....	,,	0	1	5	..	—
BRASS—						
Strong Sheet	,,	0	1	4	..	—
Thin	,,	0	1	5	..	—
TIN—English Ingots ..	,,	0	1	10	..	—
SOLDER—Plumbers' ..	,,	0	0	11	..	—
Tinmen's	,,	0	1	2	..	—
Blowpipe	,,	0	1	4	..	—

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.*

Per Ft. Delivered.

15 oz. thirds	6½d.	26 oz. fourths	6¾d.
,, fourths	5½d.	32 oz. thirds	8¾d.
21 oz. thirds	6¾d.	,, fourths	7¼d.
,, fourths	6¼d.	Fluted Sheet, 15 oz.	5¼d.
26 oz. thirds	7¼d.	,, 21 oz.	6¼d.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.*

Per Ft. Delivered.

¼ Rolled plate	3¼d.
⅜ Rough rolled and rough cast plate	3¾d.
½ Rough rolled and rough cast plate	4¼d.
Figured Rolled, Oxford Rolled, Oceanic, Arctic, Muffled, and Rolled Cathedral, white	5¼d.
Ditto, tinted	6¼d.

* Not less than two crates.

OILS, &c.		£	s.	d.
Raw Linseed Oil in pipes.....	per gallon	0	2	8
,, ,, ,, in barrels	,,	0	2	9
,, ,, ,, in drums	,,	0	2	11
Boiled ,, ,, in barrels	,,	0	2	11
,, ,, ,, in drums	,,	0	3	1
Turpentine in barrels	,,	0	3	4
,, in drums	,,	0	3	7
Genuine Ground English White Lead, (In not less than 5 cwt. casks.)	per ton	31	0	0
Red Lead, Dry	per ton	29	10	0
Best Linseed Oil Putty	per cwt.	0	10	0
Stockholm Tar	per barrel	1	12	0

VARNISHES, &c.	Per gallon. £	s.	d.
Fine Pale Oak Varnish.....	0	8	0
Pale Copal Oak.....	0	10	6
Superfine Pale Elastic Oak.....	0	12	6
Fine Extra Hard Church Oak.....	0	10	0
Superfine Hard-drying Oak, for seats of Churches	0	14	6
Fine Elastic Carriage	0	12	9
Superfine Pale Elastic Carriage.....	0	16	0
Fine Pale Maple	0	10	0
Finest Pale Durable Copal.....	0	18	6
Extra Pale French Oil.....	1	1	0
Eggshell Flating Varnish.....	0	18	0
White Pale Enamel	1	4	0
Extra Pale Paper.....	0	12	0
Best Japan Gold Size	0	10	0
Best Black Japan.....	0	16	0
Oak and Mahogany Stain	0	9	0
Brunswick Black	0	8	0
Berlin Black	0	16	0
Knotting	0	10	6
French and Brush Polish.....	0	10	0

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ASHBY.—Erection of Council school at Ashby, for the Lindsay County Council:—
Gilbert & Hall, Nottingham*..... £5,520

GRAYS.—Erection of corrugated iron building to be used as hospital by the War Office, for the Orsett Joint Hospital Board:—
G. Brown, Grays* £1,484

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Glenfield & Kennedy, Ltd. £1,200
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Tompkinson & Bettelley, Longton* £2,793

NEWCASTLE-UNDER-LYNE.—Furnishing and fitting receiving home, for the Board of Guardians:—
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PEBWORTH.—For erection of dwelling-house at Pebworth, Gloucestershire. Messrs. Knight & Hebery, architects, 5, Rother-street, Stratford-on-Avon. Quantities by architects:—

Franklins, Ltd.	£495 0 0	Matthews & Mullis	£390 19 2
H. W. Crisp ...	439 10 0		
Smith & Unett	390 0 0	F. Chivers, Stratford-on-Avon*	380 8 11

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Smith & Unett	£339 0 0	Matthews & Mullis	£242 9 10
Franklins, Ltd.	298 0 0		
T. Kench	294 10 0	F. Chivers, Stratford-on-Avon*	230 6 6
A. P. Hawtin ...	280 0 0		
D. Ratledge.. ...	262 13 0		

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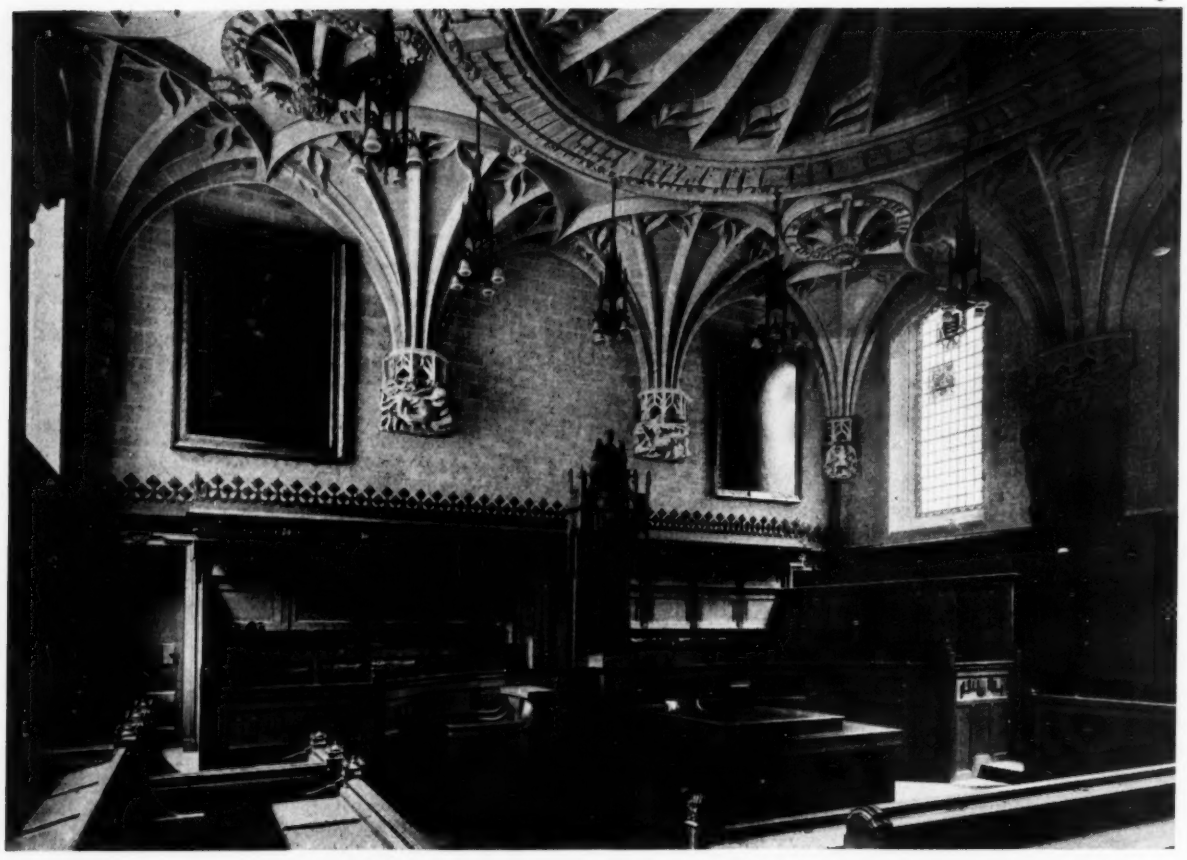

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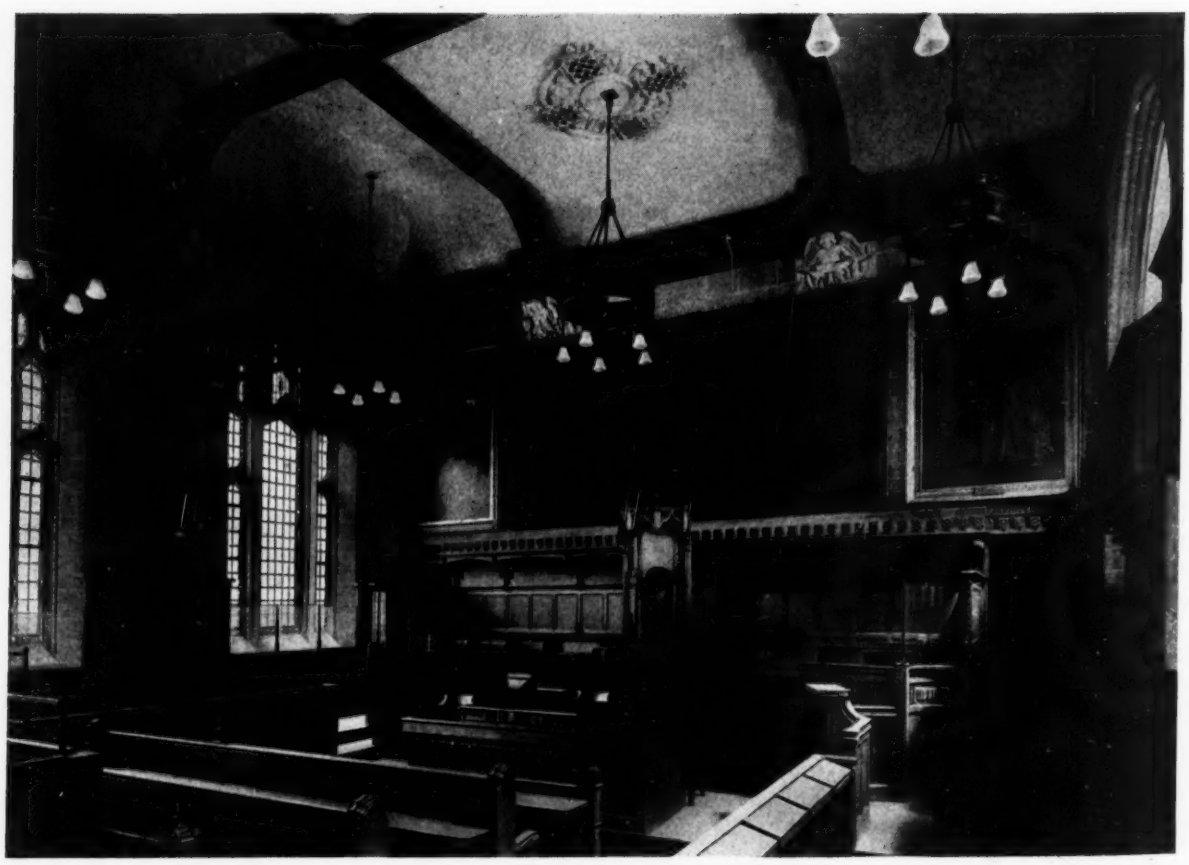

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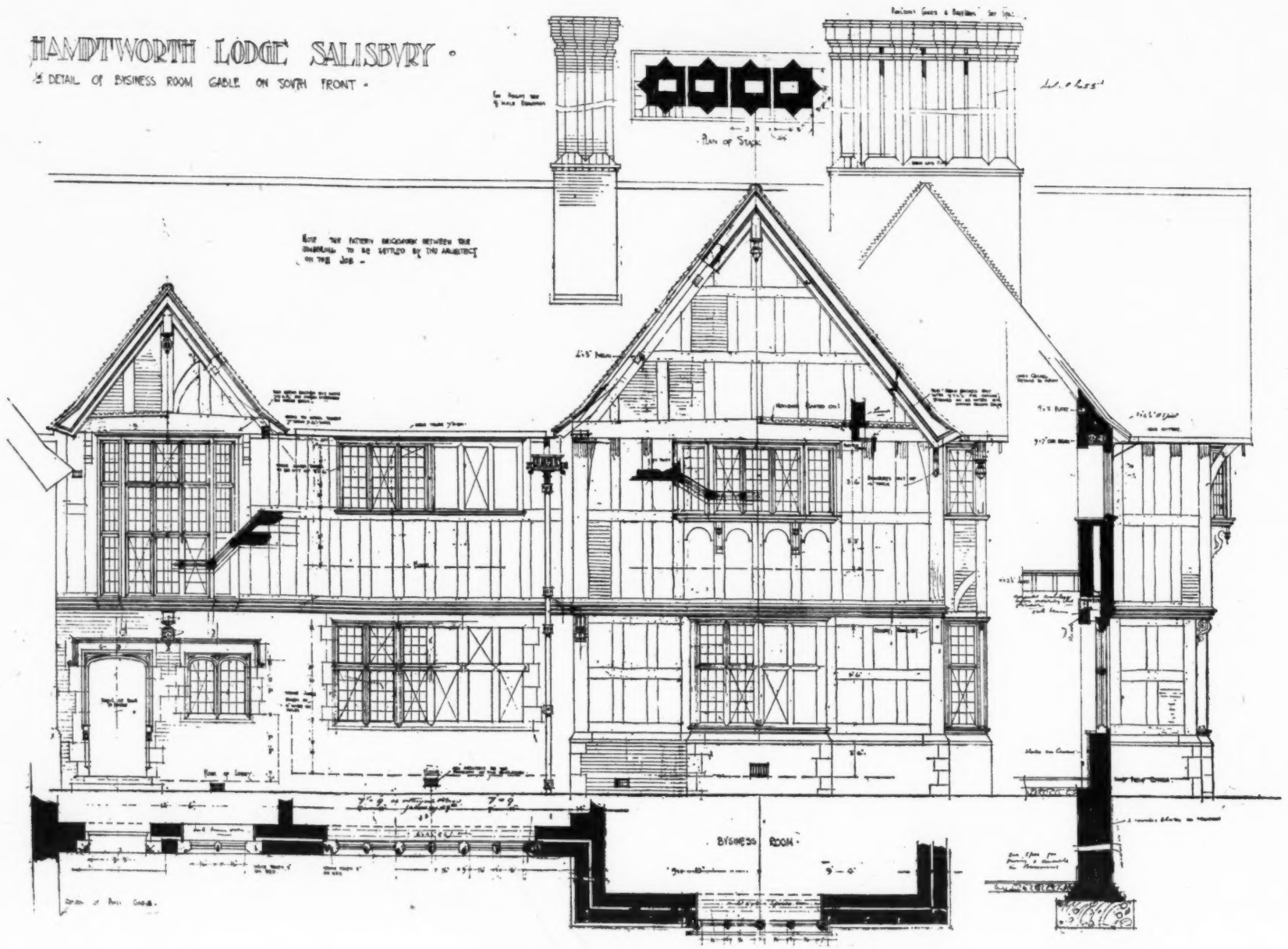

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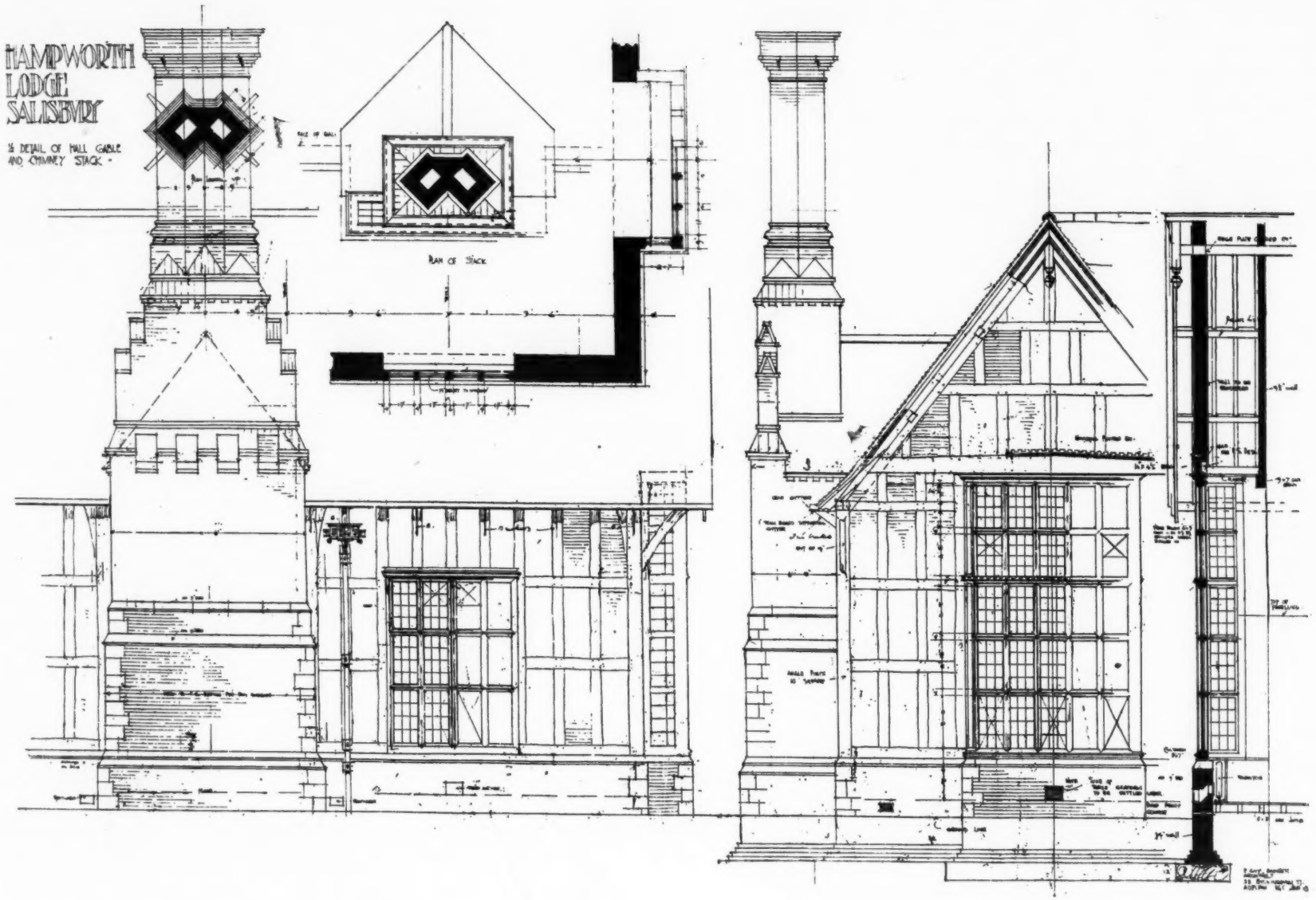

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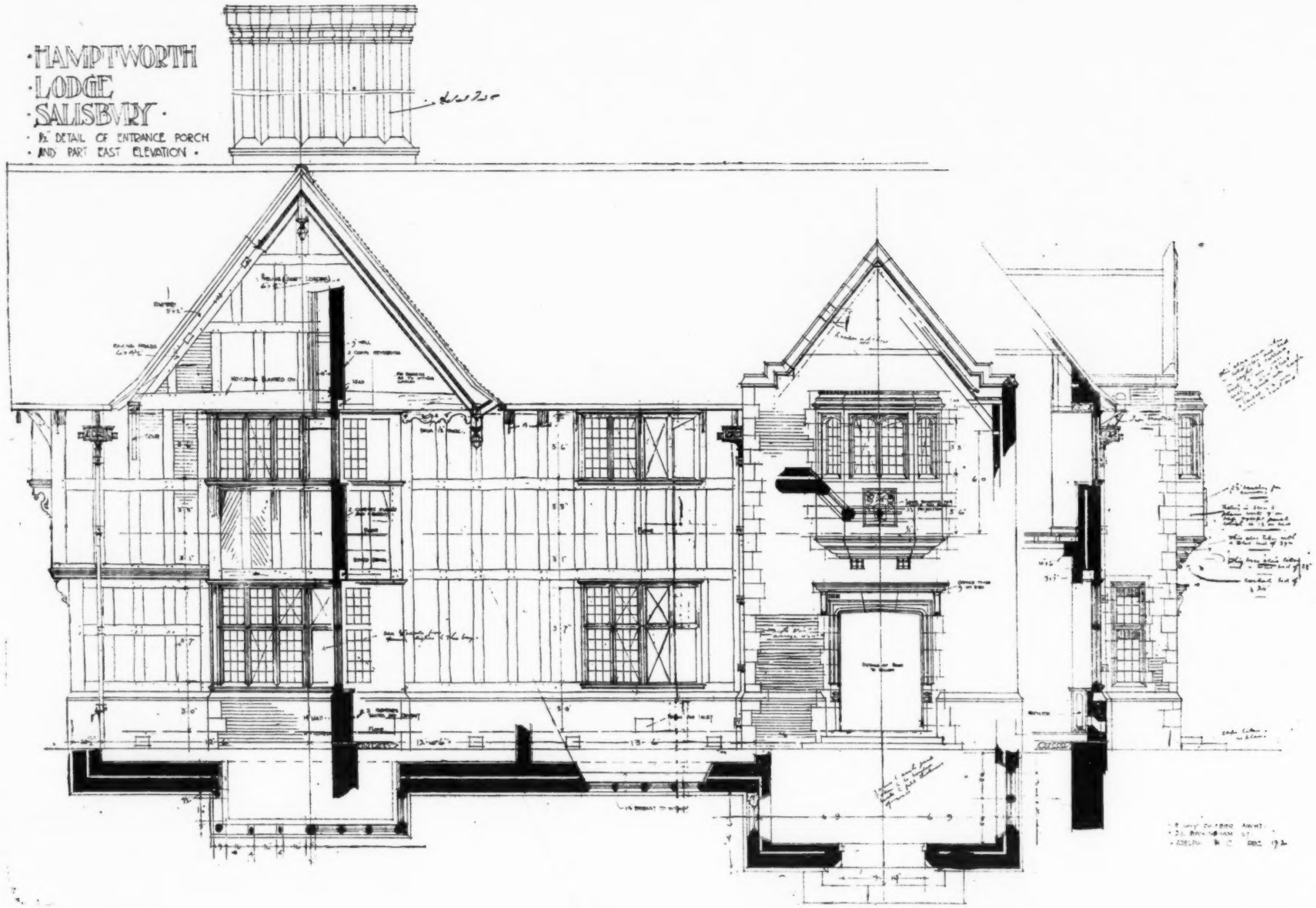

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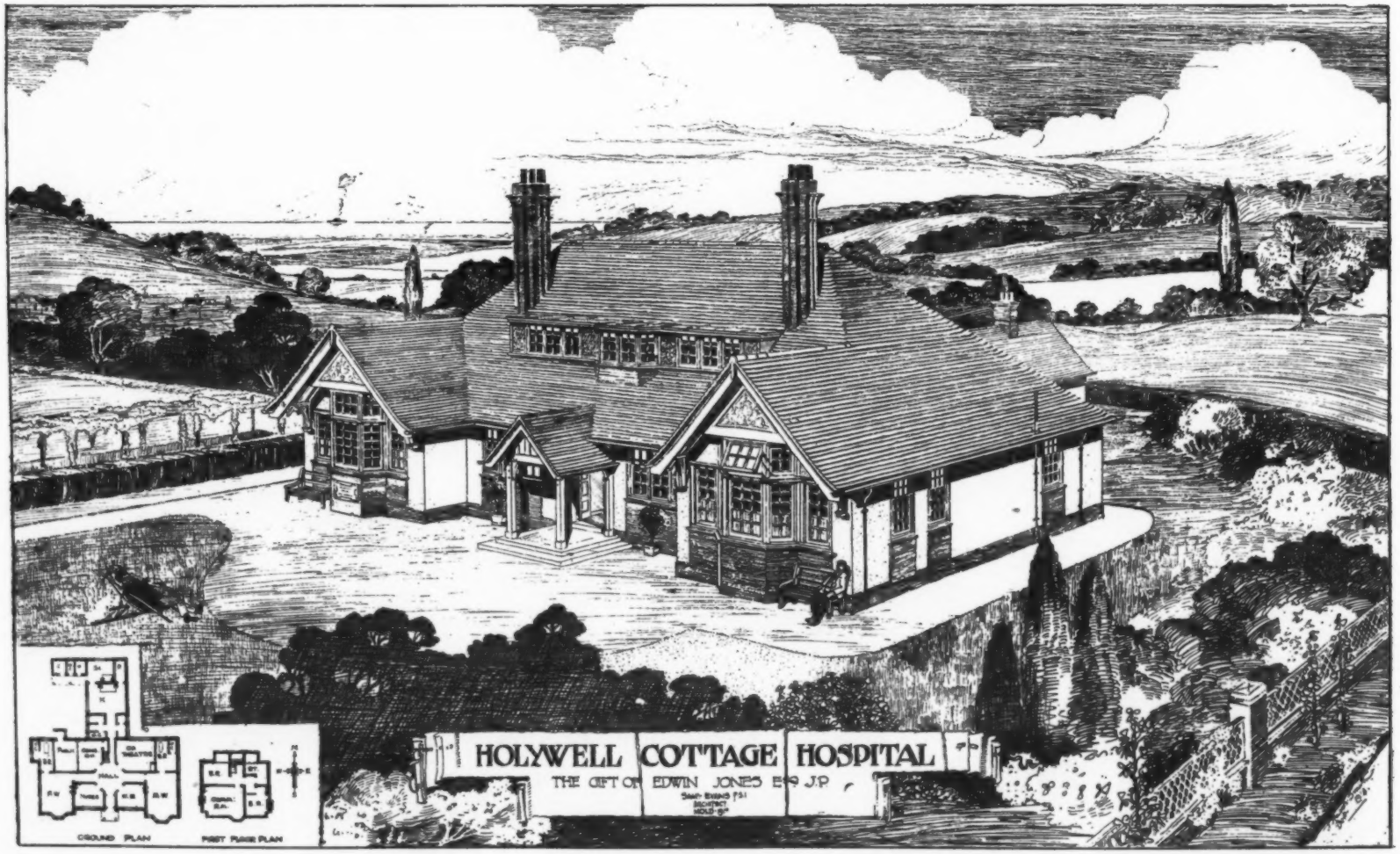

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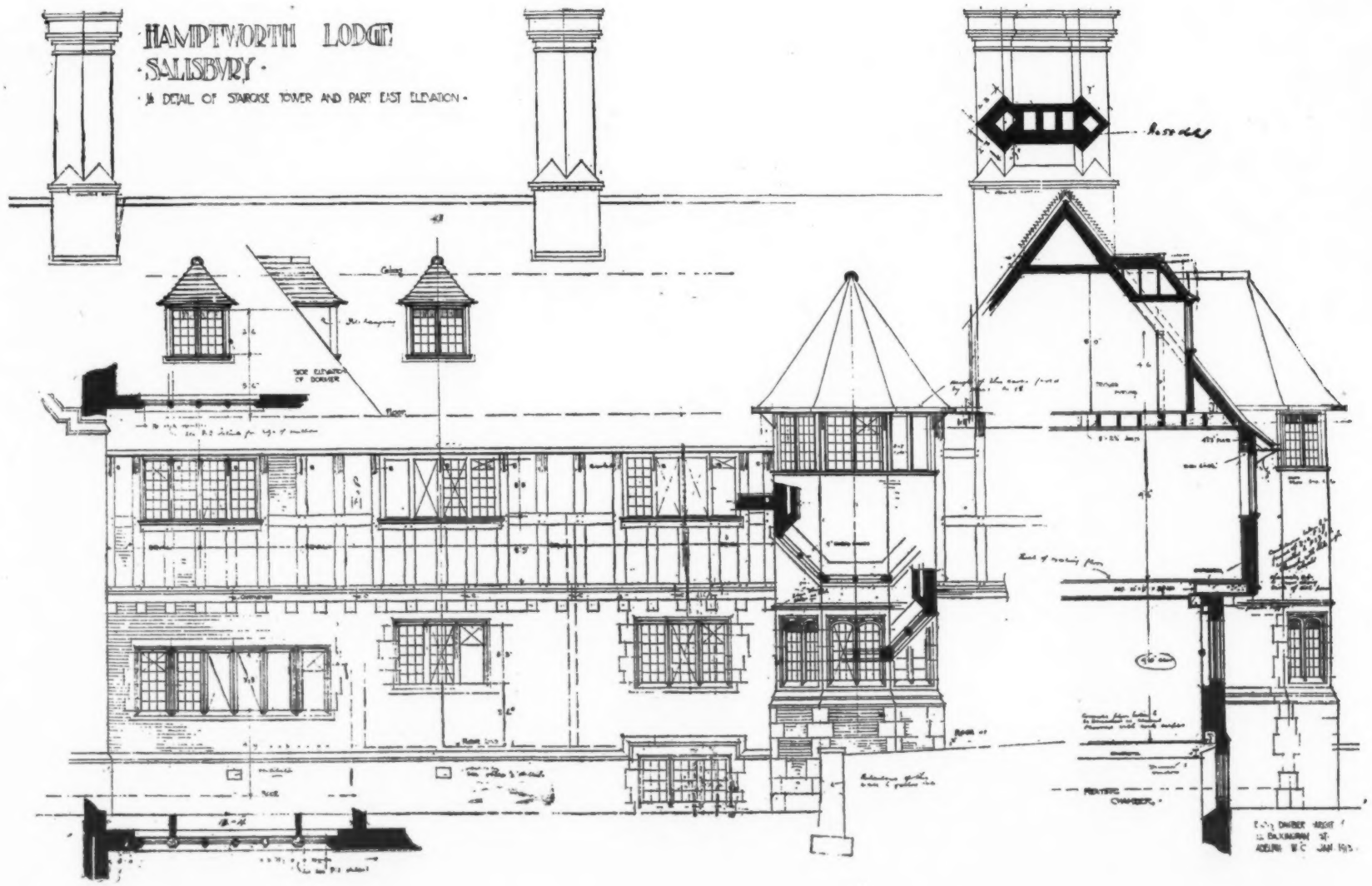

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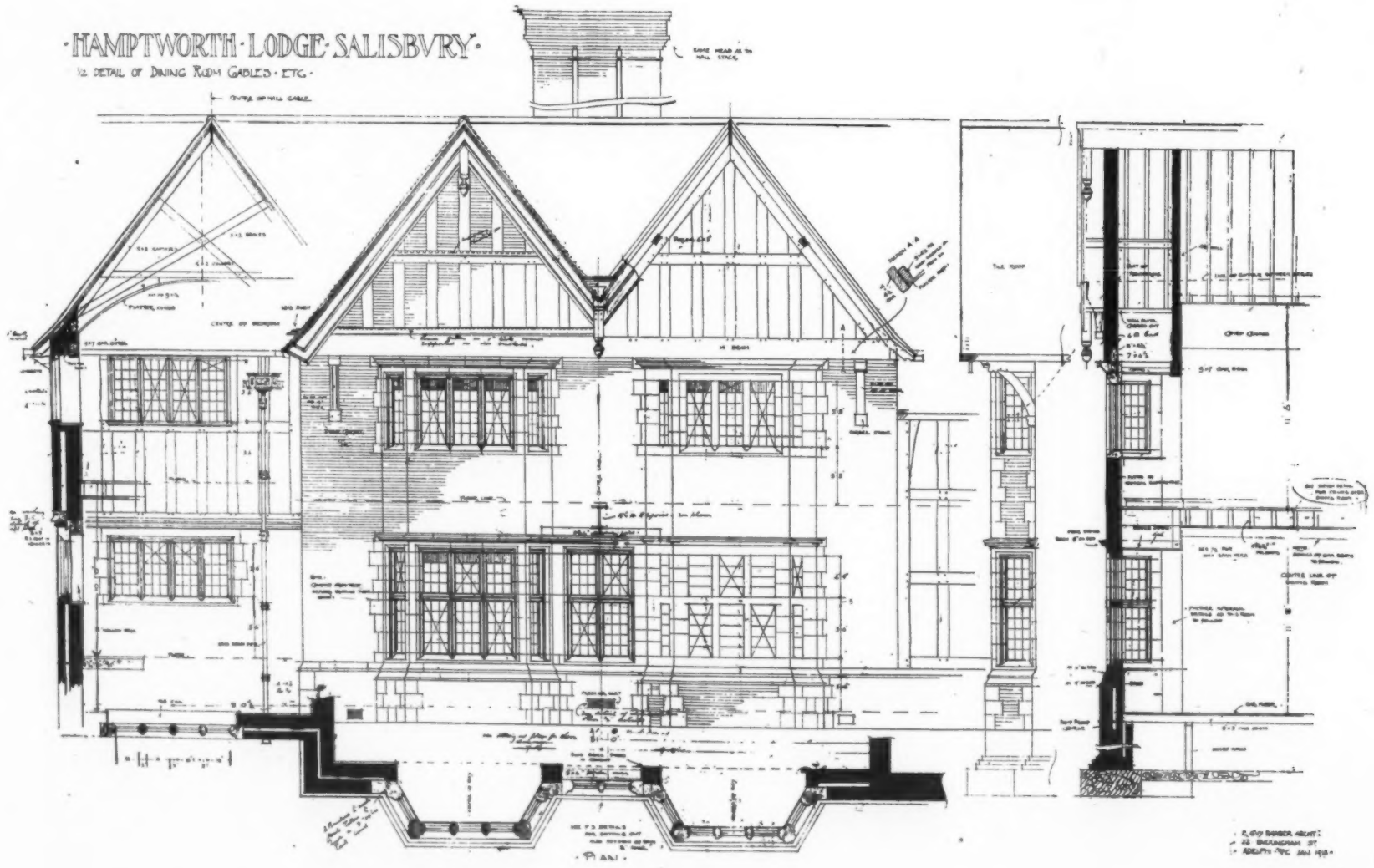

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